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ABSTRACT

The proceedings are for two workshops, held in November 1972 and April 1973, in the process of establishing a structured externship in pharmacy. At the first workshop the field instructors were apprised of the goals and techniques of the project, and the policy of the program was developed. At the followup workshop the experiences of the first semester of the program were reviewed, problem areas were discussed, and plans were laid for the future. Appended to the proceedings are: the program guidelines; instruments for evaluating the training site, student performance in community practice, and student performance in hospital practice; checklists of extern experiences in community pharmacy and in hospital pharmacy; a student profile form; field instructor profile forms for community practice and institutional practice; and a summary report of evaluation of field instructors and externship experience. The document represents the working agreement of all participants in the endeavor in the future. (Author/MSE)

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PROCEEDINGS
PHARMACY CADRE TRAINING
STRUCTURED EXTERNSHIP
PROGRAM

School of Pharmacy
University of Kansas

and

Policy and Procedures
Manual

Developed in conjunction with a Pharmacy Cadre Training Program sponsored by the Kansas Regional Medical Program.

November 17-18-19, 1972
April 26-27, 1973

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
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SCHOOL OF PHARMACY
The University of Kansas
Lawrence, Kansas 66044

Editor's Comments

This report reflects the process that the School of Pharmacy at the University of Kansas has undertaken in the establishment of a structured externship program in pharmacy.

The document contains the proceedings of workshops conducted in November, 1972 and April, 1973. At the first workshop the field instructors were apprised of the goals and techniques of the project and the policy of the program was developed. At the follow-up conference held in April, 1973, the experiences of the first semester of the program were reviewed, problem areas were discussed and plans were laid for the future.

Appended to this document are the program guidelines, which represent the participants' modification of an original proposal presented to the Kansas Regional Medical Program for support of our training of field instructors for a structured externship program.

This document now represents the working agreement of all participants in this endeavor in the future.

The editors wish to express their appreciation to the Kansas Regional Medical Program for the financial assistance which made this program possible and to the officers of the Kansas Pharmaceutical Association and Kansas State Board of Pharmacy for their unselfish giving of their time and talents to this endeavor through the Pharmacy Tripartite Committee.

Special recognition is due Mr. Ray Miller, a member of the Board of Pharmacy who gave to all of us a great enthusiasm for this work before his death in January of 1973.

The editorial revision of such a document presents the danger of changing the intent of the speaker. The editors hope that this has not happened and apologize for any point at which the speaker's intent was misconstrued or his remarks were presented in an ineloquent manner. We wish to thank the participants of the two conferences for their aid in the establishment of this very important program in pharmacy education.

F. Gene Martin, Ph.D.
Director, Pharmacy Practice Program

Howard E. Mossberg, Ph.D.
Dean, School of Pharmacy

Proceedings of Kansas Pharmacy Externship Training Programs

Program No. 1 November 17, 18, 19, 1972, Ramada Inn, Lawrence

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Welcome and Opening Remarks

Dean Mossberg: We have asked Dr. James Rosser, the associate vice chancellor for academic affairs, to welcome you here today on behalf of the University and the academic vice chancellor's office. Dr. Rosser in addition to holding the title of academic vice chancellor holds an academic appointment in the School of Pharmacy and for the last two years has lectured in our Public Health course.

Dr. Rosser: On behalf of the Chancellor of the University of Kansas as well as my senior associate who unfortunately could not be here today, I would like to welcome you to Lawrence and to the University of Kansas. I think that the undertaking that you are in the process of beginning is very important and I think that it relates to the contemporary developments which are occuring in the training of health professionals as well as changes taking place in the whole health care delivery system. I think also that it's important to impress upon you that we are in the process of undertaking an academic program. Those of you who have elected to participate in this externship operation are going to be in the process of supervision and evaluation of students enrolled in an academic program at the University of Kansas. Therefore, in many respects you will be performing the kinds of functions that our regular instructional staff will be performing within the School of Pharmacy at the University of Kansas. I don't think that I can over-exaggerate the importance of this undertaking and the importance of your decision to participate in this. I think also that the tri-partite operations which this is reflective of is also indicative of a new level and a new sense of sensitivity to the need for cooperation and coordination in the training of health care professionals in general. The fact that you are here representative of that kind of cooperation and coordination is indicative of at least the beginning of a new sense of commitment to changes occuring at a level that is very vital to our ability to bring about the necessary changes in terms of the consumer as well as the health care system in general.

So with those kinds of comments, I again would like to welcome you to the University of Kansas and to extend to you during the course of this particular program the services of the office of academic affairs. I find it quite a pleasure to be here today because I am associated with the School and because health organization and administration is one of my primary areas of interest. I might point out that this is an uinque situation in that I am accountable to Howard in one sense and in another sense he is accountable to the office that I work in, so there is an interesting system of checks and balances that will be maintained across time. Again, thank you very much and if we can be of any assistance, even during the two days that you will be here, please feel free to call upon us.

Dean Mossberg: Thank you, Dr. Rosser. Rather than my trying to introduce everybody that is here today, I think that I would like to go through the process of having you introduce yourselves to each other.

Now that we know each other, let's get this program on it's way. We sent to you a week ago, a little addendum outlining what we expect to accomplish in this program. Last week at this time, we were in Cincinnati at a House of Delegate's Meeting which Mr. Jake Miller in the back row so ably handled and one of the speakers said something that struck me as being appropriate for what you, the potential field instructors of the University of Kansas, are all about. He was a psychologist and basically what he said was that a lot of people are concerned about the fact that we are unhappy these days and yet we have more material goods than we know what to do with and he explained it this way. He said that there are four basic human needs. We have the need for physical sorts of things, such as shelter, nutrition and the like; and once you have solved that problem, you can concentrate on other needs. The next level can usually be stated around the idea of belonging. We men seek wives and wives seek husbands, we seek communities to belong to and once we have solved that basic need of belonging, then we look for some secondary needs. Secondary needs are maligned a little bit, but every man has his level of secondary needs, be they a boat, two cars in the garage, two tickets to Las Vegas, some sorts of secondary needs that need fulfilling. Eventually man fills himself full of those secondary needs and there is something else. There is time and energy left over and that time and energy left over can best be used and is usually used by these people to do something about the human condition; to improve our mutual lot in life.

I think that the reason that you are here today, and I'm not talking to students who have barely solved condition number one, but to you pharmacists in the audience, you are here because you have probably solved the other three needs. You have the time and you have the energy to be here in Lawrence, Kansas during the next three days and to help figure out a better system. That's what we are all about, trying to figure out a better system to train our young pharmacists.

I want you to reflect during these three days about the fact that I represent academia and you represent the practitioner and the other day at a breakfast in New Orleans, a pharmacist said to me what we have been saying to each other for a long time. "You blamed me, the practitioner, and I've blamed you, the academic for not having a perfect system in practical training." I hope that you agree with me that bringing the two of us together is a very reasonable and logical way to proceed, and so that's what we are about. We're here to write a document by Sunday morning that will set us in a course of action that will give us a better system for training young people in pharmacy.

Mr. Joe Shalinsky is the secretary of the State Board of Pharmacy and that's not news to most of you. Mr. Shalinsky has shown, over the past two years, a very great interest in improving the system that we are talking about here. We have asked Joe to come here and visit with you about what is happening with the tri-partite committee that was formed some seven or eight months ago. They have had several meetings and those meetings have resulted in having all of you in this room today. Joe, we would be glad to hear about the tri-partite committee and the feeling of the Board in this regard.

ADDRESS: Mr. Joe Shalinsky, Secretary, Kansas State Board of Pharmacy

As usual I'm afraid that I've prepared the wrong remarks. Never-the-less, I think that we will talk about the tri-partite committee, but I think that we will start in another place. I think that we are going to start with experience. We all know that experience is a great teacher. I think that we all can remember (or at least some of us can remember) when experience and a good preceptor or whatever he was called in those days, was the only teacher. Some of us can remember it and some of us have been told of the times when this was the only requirement in this great profession of ours. This was the only requirement for licensure, completion of the internship training as it was or the apprenticeship as it was probably called, the ability to pass an examination, this was all that was necessary to provide or to put you in a position to provide the pharmaceutical services to your community. After all, the primary function of the pharmacist is the providing of service to the public in the interest of better health. Under this system many pharmacists learned to blend an emulsion, they learned to prepare an ointment, they learned to roll pills, they learned to compound basic mixtures and generally served the pharmaceutical needs of the community in really an excellent manner, but I think that we will all agree that under the current medical practice such a system would not only be impractical, but it would be impossible and dangerous.

In 1929, Kansas required graduation from a recognized college or department of pharmacy as one of the requirements for licensure. Recognizing the importance of experience they continued the internship requirement and this generally has been true in the other health professions. As the years have passed, the formal educational requirements have increased in keeping with the expanded fund of knowledge, and a variety of modifications of the internship program have been instituted in an effort to provide the future pharmacist with the best possible training, that they may best serve the health needs of their community.

Kansas even went a little bit further. Our great state was the first in the nation to institute compulsary continuing education as a requirement for relicensure. Now you really need only to serve on our Kansas State Board of Pharmacy to realize the dignity and respect which Kansas pharmacists command throughout the United States. We've come to a point where we are requiring five years and sometimes six years of college participation and a year (2,000 hours) of practical experience in order to practice pharmacy in Kansas. Now this is really great, providing that it'll be the best way to accomplish the results that we need. It has been noted in some instances (it's been noted by our Board) that when pharmacy graduates appear for examination for licensure that there is a differential. We normally find that in a group of applicants they are all packed with a fund of technical knowledge. After all, they've gotten through school; they've had to graduate; they all seem to have a lot of knowledge, but when it comes to the practical portion, there seems to be a little bit of a differential depending on the preceptor or the person who has been instrumental in guiding their period of experience

that would somehow be the same for all applicants. It really has been a matter of conjecture whether mere time and experience is the proper procedure. The profession of medicine has indicated that by 1975 it is virtually going to have ended it's internship requirement as we know it and will have replaced it with an externship program wherein the medical student works directly with the physician, seeing patients as a part of his informal training.

Now pharmacy has begun to consider this type of approach and Kansas, along with Oklahoma and other progressive states, is embarking on a pilot program. Dean Mossberg proposed to the Board of Pharmacy in January, 1972 and I would like to quote his proposal:

> "In anticipation of a newly revised curriculum, which will include a total externship experience, the faculty has approved for the spring semester of 1973 an eight week program in externship training to be conducted in selected pharmacies within the state. We anticipate that some 35-40 students will be involved in these eight week programs. For this reason I would like to formally petition to the Board to provide that this training be allowed as pharmaceutical experience on an hour per hour basis while the student is duly enrolled in the School."

The Board approved the pilot program as presented with the provision that the program be reassessed after the one year period by a tri-partite committee consisting of mambers of the Board of Pharmacy, the Kansas Pharmaceutical Association and the School of Pharmacy. I note, Howard, that this is probably the only place that I have alluded to the tri-partite committee although there is in existence such a committee composed of the Dean and one of the members of the faculty, the secretary of the Pharmaceutical Association and the President and the secretary of the Board and the President. This committee has functioned for something over a year and although Boards are charged with the internship requirement, it is the intent of the Kansas board to delegate to this committee, the authority to provide an adequate program under the supervision of the Board.

The American Council on Pharmaceutical Education has written into its standards this kind of an activity to be effected in 1974 and the National Association of Boards of Pharmacy by resolution has approved the acceptance of such a program. Experience is a great teacher, but experience properly guided is an even greater teacher and this is where you all fit in. It is you who have accepted this most important and honored job.

Dean Mossberg: Joe, I think that you hit the nail on the head. One of the points about bringing all of you together that we talked about when we wrote a proposal that was funded by the Kansas Regional Medical Program was that some of these kinds of programs have been going on and some feedback is already available as to what goes on in a structure externship

program. Looking around the country, we noted that two states would probably fit our circumstances the best. These are the states of Indiana and Oklahoma. It was relatively easy for me to pick up the phone and call down to Oklahoma and invite my old colleague, Dean Walter Dickison to join us in the program and tell us what their program is all about, to tell you what's good and hopefully what's bad, to tell it straight, just as it has occured over the last year and a half.

Walt Dickison is a graduate of the University of Colorado. He joined Southwestern State College one year before I joined that college and we worked together for eight years. He is the Dean of that institution and has an ongoing structured externship program. Walt, why don't you tell us about it?

ADDRESS: Dr. Walter C. Dickison, Dean, School of Pharmacy, Southwestern College

Dean Dickison: Fellow pharmacists, fellow educators, friends, and guests, it is a real pleasure to be here and have a part in this meeting. I have been invited as a participant to tell you something of our programs at Southwestern State, which may, to some extent, serve as a "model" for the development of your new program. At the risk of being branded immodest, I would like to say that our program at Southwestern State is innovative, and, in common with the program at Purdue which Dr. Chalmers is here to describe, represents what we consider a significant forward step in Pharmacy's educational methodology. Its primary purpose is to improve the training of neophyte pharmacists in a manner which will better equip and more adequately motivate them to assume an increasingly significant professional role in our nation's health care delivery system.

At the risk of over simplification, we believe that this needed change requires more in the way of philosophical and attitudinal adjustments than changes in competencies. It is also a step toward the solution or perhaps I should say toward the rectification, of the problems which have plagued our profession in the matter of internship requirements.

Our new program is an extension of our clinical program. If we ask, I suspect that we might obtain as many definitions of "clinical pharmacy" as there are people in this room. May I give you my definition? To me, clinical pharmacy is very simply a "people-oriented practice of pharmacy." This is nothing new, but an attempt to return to something old and very vital.

What has happened to pharmacy over the past three decades? Why, in a time when we have the best educated, most knowledgeable young pharmacists in the history of mankind, do we find our professional credibility questioned and our position in the hierachy of practitioners of the healing arts threatened?

Many things, too numerous to discuss here, have contributed, but my explanation must start from the premise that pharmacy could not stand prosperity. In the prosperous years following World War II, many pharmacists

became "too fat" and too busy with technical and business matters to properly attend to their professional responsibilities. Instead of delegating the technical aspects - the counting, pouring, label typing and the like - to a technician and devoting his time to the professional aspects of practice involving communication and counseling with patients and other health professionals in addition to the supervision and control of drug distribution, the typical pharmacist assumed the technician's role and delegated his more professional obligations to non-professionals.

Much of the present dilemma in which pharmacy finds itself can be described as"commercialism."

The seeds of professional destruction were sown when our typical pharmacist became too busy to communicate with his patients. They took root and grew when he disappeared into splendid isolation behind the prescription case, employing a "delivery system" manned by clerks to receive prescription orders, bring them to the prescription department, and in turn deliver the filled prescription to the patient or his agent, with no opportunity for meaningful interaction between patient and pharmacist.

Is this a professional atmosphere or activity? Does it engender confidence in and respect for this well educated, knowledgeable individual whom we call a pharmacist? Time for the drugs, for the cash register, and many other things, but no time for communication with the ill, the distressed, or the well person in search of continued health.

Yet the patient is what pharmacy is all about, and the only reason for its existance as a professional practice. Every patient needs the competent, ethical pharmacist, with his expert knowledge of drugs within the health care delivery system. Such a practioner occupies a unique and important intermediate position between the patient and the other overworked and frequently inadequate practitioners of the healing arts. It is he who monitors the selection and dosage of medicinal agents to be employed in the patient's therapy. It is he, and he alone, who can and actually does serve as the health consumer's "consumer advocate."

Our clinical program at Southwestern State has as its primary objective the return of pharmaceutical practice to a "patient oriented" practice. In the early 1960's we took steps in this direction by strengthening our biological pharmacy sequence, offering a course in physiology and anatomy which is considerably more comprehensive than that available on campus for arts and science majors through the general college department of biological science. We then introduced a course in pathology, upgraded our offerings in pharmacology, and added a separate course in toxicology.

In 1968, through a contractual affiliation with St. Anthony Hospital, a 600 bed private teaching hospital in Oklahoma City, we introduced a 2 semester-hour course called Clinical Pharmacy into our curriculum. During one of the last three semesters of his academic program, each student enrolls in this course. He attends and participates in an on-campus seminar which meets once each week and also at some time during the semester goes to the hospital for one week of laboratory instruction, actually living in the hospital during this week. As a rule, students are sent to the hospital in groups of four.

During this week at St. Anthony, the student is supervised by members of the staff of St. Anthony who have volunteered for this responsibility and whom we have granted honorary faculty appointments. For a short time we had no paid faculty members at the Hospital, but now have two full time people there, assisted by a graduate student whom we employ 1/4 of the time. These people not only run this on-going program, but also have charge of our newer program, which is the subject of this discussion.

Now that we have established this background, we will move to the descussion of our newest clinical component, a course which we call 5057 Professional Practice, and which is the subject of this conference. The student enrolls for 7 hours of academic credit, and as a bonus also earns approximately 350 hours of externship credit. Our working model for development of this course was the practice teaching program of the Department of Education. In order to incorporate this course into our curriculum, we had to revise our 5th year curriculum, dividing our fall and spring semesters each into 1/2 semester length blocks, and offer a number of courses which had previously been offered once each semester on an accelerated schedule so that they could be completed in 1/2 semester. We already had experience in doing this through our on-going summer program, which is 1/2 semester in length. Consequently, our 5th academic year is now a five block year, including the summer term as the fifth block. In the spring semester of the 1970-71 school year we initiated our program, much as you are now doing, on a pilot study basis. We had been unsuccessful in our efforts to obtain a grant of Federal funds to initiate the pilot program, but believed in it sufficiently to cause us to finance it from other sources.

For the pilot program, we negotiated contractual affiliations with twelve carefully selected community pharmacies. To name a few of the criteria employed, we require that each pharmacy have two or more practicing pharmacists, that they meet high standards with regard to cleanliness, equipment, library,etc. We also take into consideration their relationships with patients, physicians and other health professionals. We try to determine their interest in, and competencies for teaching. This includes both the pharmacist who will assume primary responsibility in the instructional program, and his associates in the pharmacy. Each had, or agreed to initiate, a patient record system. As may be imagined, we had to go considerable distances from Weatherford.

Weatherford is a town of 8000 located 70 miles from the nearest metropolitan area, and only one pharmacy in this city qualified as a teaching pharmacy in our program. Some of our affiliate pharmacies are 200 miles or more from our campus.

One of the pharmacists from each of our teaching affiliates was granted the faculty status of Clinical Instructor (part-time), and the newly created field staff brought to campus for an indoctrination meeting much as you are meeting today.

Our first class of twelve students enrolled for the course, and were sent on a one-on-one basis to the pharmacy to which they had been assigned, where they spent approximately 8 1/2 weeks (1/2 semester) earning their 7 hours of credit. Since this is primarily a laboratory situation, 40 hours per week of on-the-job instruction and training for a period of one-half semester is required of each student.

During the time the first group of students was off-campus at the teaching pharmacies, a second group of twelve students was on-campus pursuing the accelerated 1/2 semester block curriculum. At the mid-point in the semester, the two groups changed locations.

It would be incorrect to suggest that this program has not created problems, but favorable results far outweight the problems. After our experience with three blocks of students (two in the spring semester and one in the summer of 1971) we decided to enlarge the program and make Professional Practice a required course. We added two hospitals in the summer of 1971, and have since added four U.S.P.H.S. Indian Hospitals and a small community hospital which offers a uniquely different approach to the education of our student.

In connection with our basic clinical program at St. Anthony Hospital, we already had one qualified instructor whom we employed jointly with the Hospital; equally sharing the cost of his salary. He remains at the Hospital, but is now employed by our School on a full-time basis. In addition, Dr. B.G. Keller of our staff was appointed Assistant Dean for Clinical Programs this year and moved from our home campus to St. Anthony. These people, together with our volunteer staff of field instructors, make up our Department of Clinical Pharmacy. In addition, we employed on a part-time basis a qualified individual who is a graduate student at the Oklahoma University Medical Center in Oklahoma City to assist them.

All of our clinical laboratory programs are now directed by Dean Keller from our more central location in Oklahoma City. At St. Anthony, we continue our basic clinical program, and also operate a multiple program in Professional Practice. In the latter program, we assign five students at a time to St. Anthony. All other field laboratories continue on a one-on-one basis.

Field inspection and supervision of the pharmacies in, near, south, and east of Oklahoma City is furnished out of our Oklahoma City base. Two members of our clinical committee, who are based at the home campus provide supervision for the pharmacies which are nearer to Weatherford than to Oklahoma City, working closely with Dean Keller in this matter. Twice each year, we conduct seminars in Weatherford for our field instructors.

We have, of course, provided our field instructors with a wealth of informative materials and assistance in developing lesson plans and schedules to fit their own needs and situations.

Grades of students are determined by use of a well constructed rating sheet and the successful completion of certain required academic assignments. The rating sheets were developed in part with the assistance of a consultant specialist in Educational Psychology, whom we employed for two months to develop this and other aids.

Students returning from their assigned teaching pharmacy go through an in-depth debriefing session with Dean Keller, and members of his staff.

Not only do the field instructors grade their students, but the students also grade their educational experience employing a rating sheet developed by the clinical department, assisted by our consultant psychologist.

This is, briefly, about the whole ball of wax. I know that I have undoubtedly said this in a manner which has left many questions in your minds. I probably have left out things that are important.

We must never forget this is an educational program. We must keep the standards up, because if it is to carry seven hours of college credit, it has to be a quality program. We think it is. One can, of course, make enemies. We know, when we have to throw a fellow out of the program, there is just no really nice way of saying, "You just aren't measuring up to our standards. You have to go." But it must be done sometimes.

We have been gratified by the response of our community practitioners. They can and will, do a superb teaching job, if we give them a little guidance, and lots of encouragement. I will be here to answer any questions you have and I hope that these rather disconnected remarks have provided you with some of the answers to your questions, and will help you to have a better program. We want you to have a good program, too. That will give us something to shoot at, and we'll no doubt do better, also. Thank you.

Dean Mossberg: Thank you, Walt. The state of Indiana has had a program similar to the one that we envision and we have with us the individual who is in charge of that program. Dr. Robert K. Chalmers is professor of clinical pharmacy at the School of Pharmacy and Pharmacal Sciences at Purdue University. I've heard him speak about his program a number of times and I want to invite him up to the podium at this time to, in essence, tell us about his program and give us some direction for our program.

ADDRESS: Dr. Robert K. Chalmers, Professor of Clinical Pharmacy, School of Pharmacy and Pharmacal Sciences, Purdue University.

Dr. Chalmers: It is a real pleasure and privilege for me to have an opportunity to participate in this important externship training program here in Kansas. Schools and states which are attempting to develop externship programs should be exchanging ideas and experiences so we adopt the successful aspects of the other programs if they fit our purpose, and hopefully avoid pitfalls that other programs have already encountered. In this context I hope to contribute some of our experiences for your consideration, but knowing the amount of background work that is going on in Kansas and the comprehensive nature of your weekend program, I plan to pick up a lot of ideas to take back to Indiana as well.

During the next few minutes I would like to introduce you to the externship program we are developing in Indiana - a little of its history, the general features of our present program and what benefits we feel it provides. Because it is an overview I will not give you very many details on how the preceptor (teacher pharmacist) works with the student. I think it might be more helpful to your program to share our experiences with specific details of the program as questions arise during the course of your conference.

Before discussing our program let me state the three most important points I want to share this weekend and then as occasions arise, I will give examples to emphasize their importance.

1. The externship program is an educational program and there must be a common understanding by preceptors, externs, and faculty of the specific objectives of the externship.

2. Open communications between all parties involved is essential between preceptors, externs, and liaison faculty.

3. Several methods for evaluating the program's effectiveness, both ongoing evaluation so changes can be made as necessary and a final evaluation procedure, must be instituted.

These three points you already recognize, I know - that is the reason for this conference - but our experience indicates a need to keep working on them. As some of you are aware, both schools of pharmacy in Indiana, Butler College of Pharmacy and Purdue, have made curricular changes to free up the equivalent of one semester for a structured externship program. The impetus for these changes began 5 years ago when our State Pharmaceutical Association appointed a special committee to study and recommend improvements in internship. The committee was wisely selected to include community and hospital practitioners, a Board of Pharmacy member and faculty representation from both schools of pharmacy. This State Association committee became the forerunner of our present Tri-partite Committee, and for purposes of continuity, some of the original members are still serving. Over these past 5 years an excellent relationship of cooperative effort and mutual trust has developed between the Board, the schools and the State Association.

From the outset of these cooperative efforts, our State Association Committee and now the Tri-partite Committee have adopted two philosophical principles.

> First, internship, or the practical experience required by law or regulation, must be positive learning experience, an experience that helps each applicant for Board examination develop the necessary confidence and competence to provide pharmaceutical services in a real-world environment.
>
> The second principle we agreed upon from the outset was the important interrelationship, in fact, interdependence between the classroom part of a student's pharmacy education and the practical experience portion of that education in community and hospital pharmacies.

In this context we agreed that the pharmacy schools and the Board in a given state have a joint responsibility to evaluate the overall pharmacy education program - didactic and practical experience. There is the further need to evaluate how to best use the resources within that particular state to provide a total educational program which helps EACH student individually develop to his/her fullest potential.

In Indiana evaluation of how to best use our manpower and dollar resources led to a decision to incorporate the minimum required practical experience as a structured part of the 5 year curriculum. This decision was based on two summers' experience (during 1969-1970) with pharmacist preceptors and their employee-interns who volunteered to structure the 3 months of summer work using guidelines supplied by the State Association Internship Committee. In evaluation these experience programs, the participating preceptors and student-interns recommended including this kind of experience as part of the curriculum so that it could be made available to all students (and not just those fortunate enough to find employment at a pharmacy with a concern for the learning value of internship). In 1971, Purdue initiated an experimental 8 week structured externship program which fifth year students could elect during the final semester prior to graduation. This was an 8-week, 40 hour per week structured experience program which students could select to take in either a community pharmacy or hospital setting. The students received academic credit, a tremendous amount of confidence-building experience, but no pay, and until this year, no Board of Pharmacy internship credit. Nineteen fifth year students elected this course two years ago and 25 elected it last year.

Evaluation of this kind of structured supervised practical experience program in specifically selected pharmacies with selected preceptors has led to two important changes in educational requirements in Indiana.

1. The Board of Pharmacy, through the State Association's lobbying efforts, obtained revision of our Pharmacy Laws so that the Board can establish, by regulation, the length and quality standards for internship. Beginning with this year's fifth year classes, one semester of a Board-approved structured externship program (which includes 8 weeks each

in community and hospital) will satisfy the minimum practical experience requirement for licensure.

2. During the same time, both schools approved major curriculum revisions which free up the equivalent of one semester in the fifth year for such a program.

Of the many positive reasons for these two changes, three are cited as being of prime importance:

1. Assuring that each student has a structured, positive learning and practice experience in both a community pharmacy and a hospital pharmacy environment - both as an aid to that student developing competence to practice in all practice environments and as an aid to his/her decision about immediate career objectives.

2. Providing continuing feedback from a wide array of progressive pharmacy practice environments of the kinds of knowledge and skills required for modern-day pharmacy practice. This feedback is already being utilized by our faculty to assess what is taught, how it is being taught and what is tested on in the basic and applied science and clinical application courses.

3. The close contact between the faculty liaiaon person and the student as well as the preceptor and the student, provides a tremendous opportunity to individualize the externship educational experience to the students' needs and career interests.

There are numerous other dividends which have accrued and will continue to become apparent as we gain more experience with the program. Briefly mentioned, these include:

1. An opportunity and mechanism to positively influence practice by identifying patient-oriented services and insuring students gain exposure and participation.

2. Develop better statewide awareness and understanding of what clinically-oriented pharmacy practice can involve.

3. Identify clinical applications actually occurring in practice to bring into classroom.

4. Bridge apparent credability gap between academia and practice.

5. Increased student enthusiasm and participation in the learning process (both the didactic and practical experience portions).

6. Increasing interest on part of faculty, in general, to accompany faculty liaison on preceptor-extern visitations.

7. Greater faculty innovation in teaching, course integration and cooperation across departmental lines.

For this year we will have 90 students out during the entire semester throughout our state in a structured externship program. Let me conclude by briefly stating 9 of the steps we are taking to help us with the 3 points I made at the beginning of my talk:

1. Common understanding of objectives

2. Open communications

3. Ongoing and final evaluation procedures

You won't remember each of these 9 points but some of them no doubt will come up again in question-answer sessions later in the conference.

1. Faculty liaison discussion with students prior to selecting community and hospital externship assignments as an aid to optimizing experience site placements. Faculty liaison vistis with potential preceptors, too.

2. Student filling out a profile questionnaire prior to beginning the program to acquaint his/her preceptor with educational and practical experience background and student self-evaluation of areas of competence and weakness.

3. Preceptor-Extern Orientation Conference held on our Purdue campus two weekend ago, November 4.

4. Pre-externship evaluation examination prior to beginning externship program, questions based on proposition statements for NABP Standard Practical examination. Non-extern fifth year students (students not electing the externship) take same exam to serve some semblance of a "control group". Preceptor to see results of his/her extern's examination.

5. Regular preceptor-extern conferences and bi-weekly visits by faculty liaison for subjective evaluation of progress and plan for further experience activities (in accord with checklist of Experiences outline).

6. Preceptor evaluation of extern at conclusion of each 8-week program, using a standard evaluation form. Preceptors are encouraged to also personally discuss their evaluation individually with their extern.

7. Extern evaluation of his/her externship experience at conclusion of each 8-week program, using a standard evaluation form.

8. Post-externship examination similar in design to the pre-examination, but different questions. Non-extern fifth year students also take this exam. Results of pre and post exams will be compared for individual students, for the externs as a group and between externs and non-externs.

9. State Board of Pharmacy examinations after graduation.

Dean Mossberg: Thank you, Dr. Chalmers. The next speaker on our program is Dr. Gene Martin. Dr. Martin is Associate Professor of Pharmacology at our school and has made the decision to take a more active part in the programs of the school dealing with pharmacy practice. Dr. Martin.

ADDRESS: Dr. F. Gene Martin: Thank you, Dean Mossberg. In the next 30 minutes I would like to talk to you about the basic philosophy of the Kansas Externship Program as envisioned by those of us in the school who have been thinking and working with it for the past several months.

You have heard some of this from Dean Dickison and Dr. Chalmers. The basic philosophy is the same and can be stated in several ways:

We think that the good practicioner has a great deal to offer the pharmacy student that we in an academic setting cannot. We feel that the actual practice situation is one that cannot be fully duplicated in an academic settin and we recognize the short-comings of the purely academic program. On the other hand we also recognize the short-comings and inconsistancies of the traditional internship program and feel that a better job can be done in this area.

What we hope to do through the mechanism of a structured externship program is to improve our training of pharmacy students.

We expect you pharmacists to be teachers. We would not be asking you to accept an appointment in the school as field instructors if this were not so. You may not realize it, but an appointment to an academic staff position is a jealously guarded thing. We could never, even if we wanted to, convince the faculty of the school of pharmacy and the administration of the University to approve such an appointment on any basis other than academic merit. Inasmuch as you will be teachers, you will be faced with one of the prime difficulty's of teachers - evaluation. You will be asked to make a value judgement of the performance of the student - this is never an easy procedure and we in the academic world have struggled with the problem for years. We periodically go from numbers to letters to subjective statements to non-graded schemes and all this is a reflection of the frustration associated with the process of grading. There are several points one has to consider in such a process, especially in a practice situation like you will be dealing with.

1. Is the student working to potential?

2. Is the student capable of doing a creditable job? (Will the public health be served?)

3. Are we confusing ignorance with stupidity? Ignorance can be

corrected, stupidity cannot, to a practical degree, in this program.

To a degree we will be evaluating the program as well as the students this time through and probably for several years until we feel confident that we have a solid, well grounded program. There are going to be several mechanisms for this testing and upon it several decisions will be based.

1. Continuation of Program - This is actually a pilot program. To be incorporated into the curriculum, all courses these days go through a pilot stage.

2. Continuation of Field Instructors - Based on evaluation by coordinator, evaluation by student, and self-evaluation by preceptor.

We also expect you students to be students. We know that education is a two-way street. Your active participation in this program is vital. You cannot, in this course, expect to gain from it without working at it. We are committed to this program from the students point of view to the extent of assigning academic credit to it. Just as the appointment to faculty status is not taken lightly, so is assignment of academic credit not an easy decision. Those of you who have been in faculty meetings and meetings of the curriculum committee know that this is so.

As we in the school are committed to this program, so likewise is the state Board of Pharmacy. As Mr. Shalinsky has indicated, credit toward internship hours is allowed. This kind of credit concurrent with academci credit again indicates the Board's committment.

We have then, a committment of the pharmacists in the state, of the students, of the school and of the State Board. With efforts by all, we should not fail.

The field instructor in this program is going to be a teacher rather than mainly an employer. The student is expected to be a student rather than strictly an employee.

Since this program is in its formative stages, we have begun rather small. The group of pharmacists here today are a rather small group when compared to all those in the state. Not everyone will have a student during this coming semester. With 35 field instructors and 27 students it is obviously impossible. Not having a student this time around is not an indication that we have a lower opinion of you than those that do. The factor of location is a major determinant and until we have some experience in the program and get the students used to the idea of spending an eight-week session away from Lawrence, those sites near-by will be more utilized.

We expect our cadre of field instructors to make an ongoing committment to the program. We are making a sizable investment in the program. We do not expect a high turnover of field instructors and we strongly

discourage participation for the purpose of serving the needs of one particular student. We think that experience will improve the program and without continued participation that experience will not be forth coming.

Working with the basic premise that the pharmacy is the proper site for certain kinds of training, we then should attempt to answer the question, "Which kinds of training?"

We have set forth in the documents sent to the preceptors the major objectives of the program. These objectives indicate the kinds of things we feel that the field instructors should be able to do well. I have tried to state them in broad terms in a different way:

1. Communicative - The student does not learn enough about communication from the academic programs of the school. He is talked to a lot but talked with not very much. This is a common feature of didactic instruction. He needs a place where he can develop his communication skills so that he can interact with clients and other professionals. You field instructors are the experts whether you realize it or not. People expect to be talked to when they seek out your services. You have done a pretty good job of communication else you would not be here.

2. Procedures: As we work at manipulating things we develop procedures that fit our needs. The Army calls this the S.O.P. or standard operating procedure. The student who has a very good understanding of the action of propranolol on the beta receptors of the heart may have a hard time in rapidly and accurately filling a prescription for 50 Inderal tablets.

3. Factual:
   a) Legal and Administrative: The legal and administrative aspects of pharmacy have changed tremendously in the past several years. While the student is exposed to and examined on these points, a true understanding of, for example, a third-party payment program comes best when it is worked with. Likewise, the pharmacist who does not understand and take full advantage of the various drug distribution systems in his community cannot offer the best in pharmaceutical services. It is inevitable in any pharmacy, that a occasional order will be received that cannot be filled because the item is out of stock, it is new or it is one that has not be stocked because of lack of demand. The pharmacy student should be capable of handling such occurances.

   Another situation that comes to mind is refill requests. I think all students should be aware of the problems in this area. You haven't lived until you have faced Mrs. Smith who says she

must have her Mycostatin tablets refilled even if it is Wednesday evening at 8:00 and the physician is in Aspen skiing.

b) Facts about Products: If you have ever tried to memorize a list of 200 drugs, the manufacturer, the dosage form, strength, color, size, shape, and so forth you know that it is a hard job. We still, after seventeen and more years of education remember pictures better than words. The better defined and more detailed our mental picture, the better we remember them. That, I think, is the major value of laboratories in school. It is also why I remember products largely by visualizing the package, and the place it occupied on the shelf in a drug store in Memphis. In short, working with the products in a prescription department is a very good way to learn them.

What I have said:

1. The premise is that quality education can go on in practice settings and since a large majority of our students enter community and hospital pharmacy, this should be the ideal laboratory.

2. The field instructor is a bonafide teacher and the relationship between field instructor and student should be student: teacher.

3. Evaluation of students, field instructors and whole program (administration of program included) is a necessary and vital part of program.

If we keep these things in mind and put the time and effort necessary into the program it will be successful and will substantially contribute to the success of our program. Thank you.

Dean Moesberg: Hugh Cotton is next on our program. Prior to coming to the University of Kansas, Hugh was the chief pharmacist of the Health Services of the University of Colorado. One of his major responsibilities over a period of five years or more at the University of Colorado was taking young students and working them in a practice situation in a student health service. And so Hugh has some pretty definite ideas, about just what the procedures are all about.

ADDRESS: Mr. Hugh Cotton, Associate Dean, School of Pharmacy, University of Kansas.

Thank you. I have spent ten years doing the kind of teaching you are going to be doing in this program. I am not a real patient man at times and I had to learn to be patient pretty darn quick when I got into the job of training students to fill prescriptions in an actual practice situation. Since, in this particular instance, we had a set procedure, we were faced with the necessity of breaking bad habits in some and creating the right habits for all. I think you will find this a challenging and rewarding experience, you will learn a lot, even more than the students at times, and you will find it to be very, very interesting and challenging. One of the reasons I am in this business, rather then out there doing what you are doing, which I did do for many years, is that I like the challenge of teaching. Students are individuals and they have to be treated as individuals and human beings.

When an extern comes to you, he is going to be rather apprehensive because he may be coming into a situation he has never been in before. We have more and more students that have not had pharmacy experience and they are going to be nervous and apprehensive to start with and you have to make them feel at home and part of the organization at once. There are certain procedures that I wrote down on an outline, that I hope will be useful to you in the development of policy and procedures. I tried to put myself in your shoes, as a practicing pharmacist; you are running a business, and you are going to be a teacher, so you are going to have a dual role to fill.

First, you will need to take some time when the student arrives to sit down with him and talk to him about the history of your store, how you happened to come about buying it or establishing it. The student is interested, he wants to know the background, how you happened to come to Hoxie, Kansas, or Goodland, or Colby, or Wichita: how you happened to be in this particular pharmacy. Also, the student is interested in how your pharmacy fits into the community, and your future plans for this particular store. Next, you ought to go over your policy manual with him. In Colorado, we developed a policy manual and I don't expect you to have an elaborate one, but if you have certain procedures and policies written out, let him know what they are. Go over the objectives of the store. Tell him how you attempt to deliver the best pharmaceutical service at a fair and just price. Explain the hours of your pharmacy, and your policy of emergency pharmaceutical services. You should explain the credit policy of the store, the cashing of checks and so forth. Go

over physicians discounts, nurses discounts, policies and procedures you follow when you check out the registers. Take the extern around and introduce him to all the employees that work in the pharmacy, and let him know who they are. He won't remember all their names, but they will certainly remember him. Explain the purpose of the various departments you have, why you have a cosmetic department and carry certain lines, why you have a veterinary department. Explain how the various departments fit into your overall operation. Go over the design of your store and explain the placement of the prescription area, the placement of phones and so forth. This may seem very fundamental to you, but the extern doesn't know these things.

The prescription department is the part the student is primarily interested in and you are interested in teaching the basic, overall prescription operation. The first thing you might cover is the pricing policy of your store. The welfare pricing fee that has been assigned to you should be discussed. The student has been exposed to the procedure of filling out welfare claim forms and if you happen to have him there when the forms come out again, you might go over the procedure to refresh his memory. The arrangement of the prescription department is also important. Do you have products in alphabetical or company order? Are the antibiotics and the ophthalmics stored in separate places? You should discuss the pricing code and the ethical and legal policy of the pharmacy regarding refills. You should touch on the Controlled Substance Act and the federal, state, and new state controlled substance act, and the BNDD registration of you and each pharmacist.

Concerning inventory control, you can explain why you purchase certain items in large quantities, the factor of turnover and what you look for in quantity discount. How you decide to return a pharmaceutical or the dating of an inventory control system should be covered. He wants to know how you control inventory, and is interested in your ordering and purchasing procedures. He should be shown the use of the want book and you should let him have experience of placing an order with the wholesaler or pharmaceutical salesman. Also, you should allow him to fill in the Controlled Substance Act forms for the purchase of schedule II substances. We have no way of doing this at the University of Kansas and this would be good experience for him. The security of your prescription department should be explained; where you keep the controlled substances that have to be locked, the dispersing of others throughout the stock and who is allowed in the prescription department.

Professional conduct is an important item that you should discuss with the student. You are the boss here and what you want in grooming is what he has to live by. If you say he has to wear a shirt and tie and a coat of particular type, he wears it. If he has to have his shoes shined, he does it. If he has to have his hair trimmed to a certain length, that is up to you and it should be done. He is a professional,

he must look and act professional to be treated as a professional, and I feel that grooming is essential for professional conduct. You can not be treated as a professional unless you look, act and dress like a professional. He must learn how to use correct speech and speak in a well modulated voice. Ethical conduct in a pharmacy should be always above reproach. If he is living in your area, you should impress on him that anything he does outside the pharmacy is also reflected on you and the store and that he should be a gentleman. Telephone conduct, and the proper use of the telephone should be covered. It makes me mad when I call a pharmacy up and they say, "Hello, Joe's Pharmacy" I want to know to whom I am speaking, like, "John Jones, Pharmacy Extern speaking."

The prescription department and dispensing procedures are important. You have certain procedures in your store that work for you. This is the way that it should be done. You know your situation, we don't know it, but I have outlined things I look for: Prescriptions for example, should be filled by the extern and checked by the pharmacist and not by a clerk or a technician. The pharmacist should be sure that the extern gets the correct spelling of the patient's name, that is very important, and the correct address. You should explain the use of claim checks if you use them.

Interpreting the prescription is very important---be sure that the intern understands the prescription order. He should know where to get the pharmaceutical in the correct form and dosage. He should understand all the information that goes on the prescription label, such as the BNDD number for controlled substances and everything that is pertinent to that prescription.

Typing the label--be sure the correct size label is selected and strikeovers and misspelled words are not allowed to go through.

New labels and a new container should be provided for every refill. The label should be affixed to the container and should be complete with the date of filling and all the pertinent information that goes on the label. The information recorded on the prescription itself should include the date of filling, the initials or name of the dispenser, the price, and the list number or the NDC number of the pharmaceutical dispensed. I suggest that you start including NDC numbers, especially when you have externs. It allows you to check to be sure what was dispensed and it also allows the externs to refill with the same manufacturer's product on generic prescriptions. If you happen to use Abbott's phenobarbital, he will not use Lilly's phenobarbital the next time and there is no danger of a patient saying "that young extern there gave me the wrong medicine." This brings up another important point, be sure to convey confidence in the extern to the public, and explain to

the consumer that you were one of the stores selected to train externs for the School of Pharmacy. You might mention that we have every confidence that the young man will be a very good pharmacist and it might take a little longer than usual but he is learning and we check every prescription that he fills. Special instructions should go on the compounded prescription order. For instance, the size of capsule used. I help the Kansas State Board of Pharmacy make up the practical prescriptions and we always have a capsule prescription. You would be surprised at the examinees that don't put the size of the capsule they used on their prescription. You should always have clear instructions on the label, such as insert, instill into eyes, apply to skin or whatever it is. Dosage form should also be specified on the label when possible. The directions should say, for instance, "take one capsule" or "take one tablet."

You have your own procedure for numbering prescriptions whether you type your number or you stamp it in triplicate or whatever, it is up to you. When filling the prescription, be sure that auxiliary labels are afixed to the container. All labels should be on rather than in the container. The extern should do all of these things and then you should check the prescription and initial it. Remember that you are legally responsible for the actions of the extern while he is in your store. Let the extern give the completed prescription and any special directions or information to the patient. It is nice for the patient to get to know the extern and the extern should have experience in handling questions related to price, changes in medication, and the like.

If you have a girl keeping the prescription log, let the extern have the experience of doing it a few times. The mechanism for the recording of refills should be covered. The filling out of welfare and other third party pay forms should be explained. Let him have the experience of filling them out. The experience will be good for him and he will learn what is involved in welfare claims.

Another area that we have largely neglected in the School of Pharmacy and in which you certainly have the best laboratory in the world is over-the-counter products. The extern can be taught to be a consultant in this area. I've talked to physicians about this and they say, "We would like to have the pharmacist take care of the colds, minor sore throats, skin abrasions, diarrhea, etc. But when the complaint is severe be sure to have them see us." You should have in your library the OTC handbook that APhA puts out. Have the extern study that book and help him learn the product available, their use and advantages. The student needs to develop confidence in his ability to recomment OTC products. He should know indications, side effects and contraindications. You may want to assign therapeutic groups for study and test the extern. The extern has to get out there on the floor and do this himself. I think that we can all do a better job with OTC products.

The extern needs instruction in the professional handling of health aids, convalescent aids and sick room supplies, diabetic supplies, and first aid supplies. Show them the uses of crutches and wheel chairs. You may want to use the same procedure as used in OTC products. This is an area in which they need instruction and experience.

Let's look at the physician. He is interested in the extern, he's proud to know that you have an extern as part of the university system and if you can, I would take the extern and introduce him to the physician. Tell the physician who he is and what's going on. If you have physicians who will be calling in prescriptions who have eccentricities or who don't like to be called at a specific time of day etc., explain this to the extern. Teach the extern not to be afraid of the physician. Emphasize that you are both health professionals and if he doesn't know something about a product be sure that the extern says "I don't know, Dr. Jones, but I will look it up and call you back." Help them develop competence in answering questions. The externs have had pharmacology and are experienced in the area of drug information, but don't let them try to snow the physician. Take the extern to the local hospital and introduce him to the pharmacists of the hospital, the administrators, the nurses, and give him a tour of the hospital. The dentist is also a prescriber, so when he comes into the store, introduce him, and tell him about the extern.

You should go over the personnel policies of your store. Explain how you hire personnel. Cover all the items from vacation schedules to retirement insurance, whatever you have. As for business analysis, if you want them to know your business, it's up to you. If you want to bring them in this far and let them look at your income statement, your financial position, you make that decision. I'm sure you can trust the extern. You may want to discuss banking procedures, and show them how you make your daily deposits, and how you take care of the work sheets for checking out registers. If they want to be more involved with the management procedures, and you want to let them, fine. As Dean Dickison said earlier, if they want to understand the cosmetic department, or the the other departments, and get involved in this, let them go ahead, I think it is good training for them.

I have covered this fairly hastily, but this is what I would do were I in your situation. You can tear it apart in your workshops if you disagree with any part. Thank you for your attention.

Procedures for Teaching of Basic Pharmacy Skills

Hugh A. Cotton

I. Introduction of the extern

A. History of the Pharmacy
1. Founding
2. Present position in the community
3. Future plans

B. Policies of the pharmacy

1. Policy Manual
2. Goals and objectives
3. Pharmacy hours
4. Reasons for various policies

C. Tour of the Pharmacy

1. Introduction to pharmacy employees
2. Purpose of the various departments
3. Other details of the pharmacy in regards to design and layout

II. The prescription department

A. Overall prescription policies

1. Pricing policy
2. Stock arrangement
3. Refill policy
4. Ethical and legal policy
   a. Durham-Humphrey
   b. Controlled Substance Act
      (1) Federal
      (2) State

B. Inventory Control

1. Stock turnover
2. Quantity discounts
3. Returns of pharmaceuticals

C. Ordering Procedures

1. The pharmaceutical salesmen
2. Drug wholesaler salesmen

3. Controlled Substances - Schedule II
4. Emergency Ordering Procedures

D. Security of the department

1. Personnel in the department
2. Controlled substance storage

E. Professional Conduct

1. Grooming
2. Speech
3. Ethical conduct
   a. Pharmacy
   b. Outside of pharmacy
4. Telephone

III. Prescription dispensing procedures

A. Receipt of prescriptions

1. By the extern or pharmacist
2. Patient's name and address
3. Correct spelling of name
4. Use of claim checks if used
5. Communication to patient

B. Interpreting the prescription

1. Understanding the prescription order
2. Obtaining the pharmaceutical

C. Typing the label

1. Correct size of label
2. Strike-overs and mis-spelled words avoided
3. New label for each refill
4. Completeness of label

D. Information on prescription order

1. Date of filling
2. Initials or name of dispenser
3. Price
4. List number or NDC number of pharmaceutical dispensed
5. Special instructions on the prescription order
6. Clear instructions on the label, such as "insert" or "instill drops"

F. Assigning the prescription number

G. Filling and labeling

1. Affixing label on the outside of container
2. Auxiliary labels
3. Proper prescription container
   a. Safety-lock containers
   b. New container for each refill

H. Checking the completed prescription

1. Checked by preceptor

I. Completed, filled prescription given to patient by extern or pharmacist

1. special directions to patient
2. Handling of problems such as price or change of medication

J. Use of drug profile

K. Record keeping

1. Prescription log
2. Refill recording
3. Controlled Substances
4. Third party prescriptions

IV. Over-the-Counter Products

A. The extern as a consultant to the consumer

B. The comprehension of the use, dosage, and brands of the various products.

1. Brand selections

C. Drug side reactions

1. Interaction

D. Develop confidence in the extern in this area

E. Assign therapeutic groups for study

F. Test the extern

V. Health Aids

A. Sickroom supplies

B. Diabetic supplies

C. Convalescent aids

D. Other health needs devices

E. First aid supplies

F. Follow the same teaching techniques as in O-T-C products

VI. Allied Health Professions

A. The physician

1. Detailing the physician
2. Consultant to physicians
3. Various idiosyncrasies of each physician

B. The Hospital

1. Pharmacist of Hospital
2. Administrator
3. Nurses
4. Tour of hospital

C. The Dentist

1. Prescribing habits of the dentist
2. Detailing of the dentist

D. Veterinarian

E. Nurses

1. Hospital
2. Physicians
3. School
4. Nursing home

F. Extended Care Facility or Nursing Home

1. Administrator
2. Nurse
3. Pharmacist's Consultant

VII. Management Procedures of the Pharmacy

A. Personnel policies

B. Business analysis

1. Use of accounting procedures
2. Banking procedures
3. Daily worksheets for checking out register

C. Miscellaneous Procedures

VIII. The Pharmacist and Civic Obligations

A. Service Clubs

B. Political Involvement

C. Education

D. Recruitment

Dean Mossberg: The next item that we wanted to bring before you is one that has stimulated a lot of discussion and questions in our preliminary talks. Mr. Jere Matchett is going to take some time to talk with you about the patient record system, its importance and how it may fit into this program. Mr. Matchett.

ADDRESS: Mr. Jeremy Matchett, School of Pharmacy, University of Kansas.

The use of a patient record system in pharmacy today has been and continues to be a controversial subject. I view patient record systems as a big plus and almost a necessity, particularly since it has been pointed out that there is a shift in the emphasis of pharmacy from that of product orientation to patient orientation. I think that a patient drug profile can serve as the heart of such a change in attitude and change in philosophy of the way we operate a pharmacy. It presents an opportunity to get to know your patient better and be in a position to know more about them and communicate with them more effectively. About 15 years ago, when I graduated from the K.U. School of Pharmacy, we were taught very explicitly and very directly that you do not discuss anything with the patient as far as what his medication is for. If he wants to know, you refer him to his physician. We have come 180 degrees from that and now are attempting to teach the pharmacy students to help patients to interpret the physician's instructions and to offer as much advice and information as the pharmacist is capable of giving.

I had to figure this out for myself in my own practice because I was taught differently. It finally dawned on me that I was not a middle man, there to protect the physician. It took me a while to figure out that I was really on the patient's side and it was his interests that I was there to protect, and that my responsibility was to the patient, not to the physician. So, ten years ago when I opened my own prescription shop after having worked for several different types of pharmacies, I decided that I would try to use a patient record system to enable me to better serve those who came to me for their pharmaceutical needs. So, what I would like to do is relate to you briefly what my system evolved to be.

It started out as one thing and ended up as something quite different; over a period of ten years it grew from a very brief notation of name, address and phone number to a great deal of information about each patient concerning the ages and names of his children, their drug reactions or sensitivities, any chronic diseases that they were being treated for, how many physicians they had seen over a period of time for one purpose or another (making an attempt to differentiate which was their primary physician and which were those specialists that they saw only occasionally). I found that you cannot remember all there is to remember about each patient without making some kind of record that you can refer to and update as new things happen to the people that you serve. So, I think a patient

profile system or record system of some kind serves as the ideal basis for getting to know and appreciate and care for those who seek your services.

In addition to the personal needs that you can fulfill with a patient record system, there are certain business needs and business advantages that I think a patient records system can fulfill. I would like to briefly go through some of the things that my system and others which I have read about evolved to, and what functions they serve.

First of all, I have to list an insurance record. I am sure that you have all had the circumstance of a patient wanting to know how much prescriptions filled for each member of their family during one year had cost. Perhaps a charge account system would take care of this and allow you to document the prescription history of this patient, but there is the possibility that they charged other items in addition to prescriptions, or that they may have paid cash for some of their prescriptions. With a patient profile you have a complete document of prescriptions that were purchased during this time in one convenient location.

Third party payment systems may entail a multitude of forms that must be filled out. The information for these systems can be kept on this record and easily extracted at the time the transaction is made. The patient will not always remember to bring their identification card and you have to have the number which appears on the card to fill out the claim form. With Medicare claim forms, title 19 claim forms, and third party claim forms, numbers get confusing, so if there is any way you can keep them separate in a central location, it is to your advantage and I think that the patient record system supplies that opportunity.

Income tax records are just about the same with the same possibilities, the charge accounts could furnish this information, but not all items are charged each time.

One use that I found that was a great help maybe because I had a number of older people as patients, was for refill information. Many times these patients would be near my pharmacy and recall that they needed a prescription filled. They would come in and say "I'd like to have those pretty little oblong pink pills that you gave me two weeks ago or three weeks ago, or was it a month ago. I don't remember." If you use a daily record log system of recording refills and new prescriptions, you just about have to know the date within two or three days to be able to run it down conveniently, but I had a lot of Mrs. Smiths and a lot of absent-minded Mr. Joneses who didn't remember the number, didn't remember when they got it, but they did remember their name and if I had their name I could find their prescription. This was a service that I felt that many of them really appreciated and it made my work a lot easier. Another possibility for the use of the record system

presents itself when prescription containers have been lost and need to be refilled. This situation falls in the same category as forgotten numbers.

Another major reason for the maintanence of a record system is the possibility of detecting drug interactions. This is a subject in itself and I won't say much more about it other than to identify it as probably the major use from a therapy point of view of a patient record system. With the increase in the specificity and potency of drugs that are used today, and the common occurrence of referral from one physician to another, it is not inconceivable that a patient may see as many as five or six physicians in a year. This results in no single physician having a complete drug history on that patient. If the prescriptions are filled consistently by the same pharmacist, there is one place where this information is available for those who may need it, including physicians not directly involved with the prescription that happens to be under consideration at the time the drug interaction is detected. Dentists could come into this category as well. The selection of over-the-counter drugs could be more rational if patient record systems are used. You have information about the adverse reactions, drug allergies, and disease states of the patient and can act accordingly. For example, if you were advising a patinet on an O-T-C- cold remedy and you knew that he was being treated for gout, you would probably try to avoid a salicylate containing prescription.

In the dispensing lab we emphasize drug interactions, adverse conditions regarding disease states and drug allergies. This is, I suppose what you would call our "doll house" approach and these reactions occur with a great deal more frequency than is actually encountered in practice. The student probably gets a misconception of how often these kinds of things occur, therefore he looks at every prescription and if there isn't a problem he is dissappointed. He feels that he has made some mistake. So in the externship environment, realism will be added with regard to frequency of problems and how problems are handled in real situations. In our laboratory there are two or three of us who function as laboratory instructors and the student comes to see us about problems. We are instructors and that is a little stilted and a little different arrangement than is actually the case in practice: By the end of the semester we are viewed a little bit differently by the students than we were at the beginning of the semester. So realism is one thing that we can provide for a while until we become better acquainted with the student, then the realism suffers just a little bit.

Another use that a patient profile can furnish is the monitoring of drug therapy and in this instance I am thinking of the two extremes: drug abuse or excessive use and the other possibility, which may be a little harder to detect, that being inadequate dosage on the part of the patient.

An example of this might be the patient who is given digitalis and is a little bit forgetful and doesn't take it with regularity. When that patient returns to the physician after a month and the medicine hasn't done what it was supposed to in the eyes of the physician he may increase the dose or change the drug. If he knew that the number of tablets that he had prescribed had not been taken in that time, it would temper what he did in continued therapy of this person. On the other side of the coin is the patient who is dispensed a two weeks supply of barbiturate and requests a refill after one week. If his drug information is on a central record such as the patient profile I think it would be much easier to detect than if you went to the controlled substances register and tried to figure it out from there.

Another intrinsic value of the system is in the area of public relations. It is a good way to remind yourself of the status of a family, how many children they have and so forth, so that when the mother comes in and has a prescription filled, and you are recording her prescription, you are reminded that her oldest child had a cold a week ago. I always found that it went over very well at that time to ask "How did John get along with his cold?" I think that the patient appreciated the personal interst that this implied. It has to be, of course, a genuine interest and the only function that the card serves is a memory refresher. If you don't care how John got along then no matter how good a record you keep, it will show. This is purely a note to yourself, but it does give you the opportunity to be specific and concrete.

Another important point is the legal record that the profile can provide. With the pharmacist being in a position and being properly educated to advise patients and physicians, often times it may be necessary to prove that you did advise a particular patient what to expect or what could happen as a result of taking a drug for a period of time. The same information that you may communicate to a physicain may need to be recorded. Granted, it can be put on the back of the prescription, it could be put any number of places, but I think a composite single location for all information would be adequately furnished by a drug profile of that patient or that family.

A problem can come up in recording and initiating such a system. How do people react to inquiries as to how old they are? Some women may object to this. How many children do you have? All the historic information that you need to make a system of drug profiles functional and adequate. I have found personally when I began mine and as I gradually added to it, the people were pleased to find that someone today was really interested, I had comments ranging from, "Gee, I think this is great that you are doing this," to, "You want more information about me," or, "You know more about me than my physician does." And I think this may often be the case. Physicians are sometimes pretty casual in taking drug histories and histories in general, particularly

on out-patient therapy for minor conditions. Some are very casual in their prescribing habits, and I think it is necessary for the protection of our patients that this information be recorded and kept and utilized. Some pharmacists object to the fact that it may be extra work. Initially it might be, but I think that those who observe that extra work is involved may not realize that some of the records that you presently keep possibly could be eliminated. For example, the Locato type system could be eliminated. Some of you probably still are using the daily log book where you record refills and new prescriptions. At the end of the day you count up how many there were, draw a line and start over the next day. This takes extra time. If you have a patient record system I don't see why that type of record would need to be kept. In my pharmacy, I had a head counter; you push the button and the dial advances one number. In this way I recorded my refills. The new ones I would put in a big paper clip. At the end of the day I took them out and counted them, put them in the prescription file, wrote the two figures in my daily log sheet, set the counter back to zero and I was ready to go the next day. This took a lot less time and gave me time to work on the patient records and keep the information there rather than recording the prescriptions in a daily log. So I think it is possible to consolidate and end up with a more effective system than maybe some people are presently using.

Another consideration or a point to go from here would be what form do these records need take as far as a physical appearance. I am sure you have all read in the Journals there must be 100 different types available. I have some that you can look at during the discussion session section or later this afternoon or tomorrow, for ideas. We use one in the dispensing lab which I didn't bring a sample of but I am sure your preceptor could obtain a copy of one. I am not particularly happy with this card system and I think we will revise it and add information to it. A blank card, 5 x 7 index card can serve as a beginning. I found that I had mine all ruled in all different directions and I ended up not using the rules except for recording refill dates. So, the form is not necessarily important. I think that anyone who starts a record system on patient drug history will not end up with what they start with. I would allow room, allow areas for change, in order to add information that you may not think of initially.

In closing I would like to quote a survey that Dean Mossberg called to my attention. This was a survey sponsored by the APhA in regard to the public opinion of the layman regarding a pharmacy recording the information that I have been talking about. This was a national survey, not at a particular locality so I think it does have some merit. Fifty percent of those who were questioned or responded by saying that such a system is really great and were all in favor of it if the pharmacist would really do it. Twenty-one percent were amazed that this wasn't already being done routinely. Four percent responded by saying this would be great, it may stop the pharmacies from competeing with the five and dime. Twelve

percent said that they didn't believe it. Fifteen percent said that it would be terrible because it will increase the cost of an already too expensive health care item. I think that you can institute a good record system, a functional record system, and serve your patients well without very much of an increase in your operating cost.

This has been a brief rundown of my observations and personal experience with a patient record system, and what I used it for. During the discussions this evening and later I would be glad to talk on an individual basis with any of you that would like to talk about patient drug profiles. Thank you.

Dean Mossberg: Before letting you go this afternoon, I would like to summarize for you what I have heard this afternoon and the salient points that I think we should take out of this portion of the conference. We heard a State Board member tell us that there was quite a change in the philosophy of the Board that controlls the practice of pharmacy in relation to what it thinks about the internship experience as it is presently constituted. I heard that Board member say that there is a difference between simply time and experience and what we are really after is experience. Moreover, he specifically said that it is the intention of the Kansas State Board of Pharmacy to delegate to the Tri-partite Committee this particular responsibility, that body to be responsible to the Board for the quality of this program. I think that's a philosophical change that we have witnessed within the last 12 to 18 months within the State of Kansas. I believe we have the Association and the Board to thank for this change.

I heard Walter Dickison say something that several other people have said. If pharmacy really takes a look at itself, it should understand that what we have lost in the last 20 - 25 years is what we might call client contact. Pharmacy has lost client contact and unless it finds the client again, pharmacy is in difficulty. I think that that is one of the reasons that we are gathered here today--to talk about an educational experience that will restore some of that contact for the profession. We will talk again about the fact that we have been funded by the Kansas Regional Medical Program. As a side issue I think I should tell you why we were funded by the Kansas Regional Medical Program. I have an idea what pharmacy is all about today, but I am sure that's not what pharmacy's going to be in ten, fifteen, or twenty years. It is the basic philosophy of our Regional Medical Program to insure that the practice of pharmacy 10 or 15 years from now is the interest of public health, and serves to protect the public health. We told them in our application that we were going to touch five percent of all pharmaceutical services within the State of Kansas with this program, and that five percent will influence all the rest of the pharmaceutical services within the State. So I think what we are about to do here is to help reinstitute patient contact, and to assure that our students get this kind of experience. I also heard Walter Dickison and Bob Chalmers

say that they were willing to share with you the specifics of their programs, so I hope you will dig it out of them.

Bob Chalmers said something very significant as for as I am concerned. He said to me and to you that before we leave this conference, we should understand our common objective. Without that, we are probably lost. When you get a student and I come visit with you, there should be open communication between the student, the field instructor and the faculty member whose job it is to assess what's going on. I heard Bob Chalmers say that a very important aspect of all this is that we are bringing the classroom and the place of practice together. I must say that I perked up my ears when he talked about one of my problems, and that is that this interaction should provide adequate feedback to the faculty to really modify their courses. Now faculty always want to modify their courses to have the best possible course, but I can assure you that without some feedback mechanism sometimes they do work in a vacuum. This whole process could really help us all in eliminating that kind of vacuum. Dr. Chalmers also said that the State of Indiana proceeded toward a structured externship training and their program of eight weeks of clinical and eight weeks of externship experience now constitutes the required time. Dr. Chalmers also mentioned a unique examination that we plan to institute before we allow the students to go out, so that the field instructors will understand just what the student's level of knowledge is in comparison to the other students.

Dr. Martin talked about the basic philosophy of our staff. He and I have worried about a couple of things. We worried about initiating this program and causing in those of you that do not get a student an immediate frustration. We worry about that so I would like to say again that we should understand that the major purpose for this conference is to develop the procedure to carry on a program that will go on for a number of years. The fact that you do not get a student this year does not mean you are not totally involved in this process. Dr. Martin also told you that when you do get a student, you are probably going to have a new experience. That experience that only a teacher knows when it finally comes time to make an assessment about the progress of the student. Three of us in this room, Hugh Polson, Jim Gillispie and myself, visited Walt Dickison about eight months ago. Walt may not tell you this, but his staff told us that one of the problems that they have is that when it finally got down to that nitty-gritty, of making a mark on the paper and assessing the progress of that student, that the pen kinda quivered. I think you ought to understand that. You will have that problem.

Dr. Martin talked about the fact that we have three things to do in this program. That we need to improve the students' communicative skill or add to them; that we definitely want to make sure that the

procedural skills of that young budding pharmacist is almost up to snuff and where yours are by the time he or she leaves you and that you build upon that student's factual knowledge.

Hugh Cotton gave you, I think, a very comprehensive run down on procedures. He put his own personality into it to be sure. But it was comprehensive. I would only say that he backed off from one thing that I personally feel is an important aspect to this program. He said you might take the intern out and visit with the physician or the dentist or the podiatrist. I don't believe that. I say you will take the student out and meet with the practitioner, if you are going to do a good job in this program. I think that you would all agree with me on that point. Jere Matchett was selling profile systems. We asked the question before we ever started: Do you now have a patient profile system? Most of you said yes, a few of you said no, but were instituting one and I think a couple did say no. Well, we are going to continue trying to sell the patient profile system even though that we know that there are pros and cons about that particular system, and I suspect in the end we will probably have a statement in our procedures concerning this and you're the ones that are going to write that statement.

That, as I see it, is where we now stand. This evening after dinner we are going to meet in small workshop sessions and discuss some of the specific points and issues of the program. Tomorrow morning at 8:30 we will meet back here and have reports of those workshop sessions.

In the handout materials, on the second page, Item No. 3, under Objectives of the Initial Program for Externship Cadre Training, we say this, "To develop through the mechanism of small group workshops, a set of guidelines in the form of proceedings of the conference, to aid the field instructor in his teaching efforts so that he or she will understand: (A) His or her relationship to the School and University in matters such as retention, termination, or appointment as a field instructor, (B) His or her relationship to the student as a teacher rather than employer.

Workshop group 1 will look through the materials that you have, the guidelines that we sent to KRMP, the other materials that you have been provided, add your own thoughts and to bring back tomorrow morning at 8:30 what your thoughtsare about those two points. I don't want to infer that you can't look beyond those two points. All I am saying is that that will be your specific task and then you can delve into all other points on here because you probably have some thoughts and ideas and those should be reported as well. But we have some proposed policy written on this subject. We want your input and your modification so that these policies are in accord with your wishes.

Workshop group 2, under the leadership of Jere Matchett, will take points C and D: I think you should also use Cotton's outline and procedures to help you with that work. (C) His or her responsibility

to the student in specific program areas such as educational financial and evaluative. (D) His or her responsibility to the school in areas of evaluation of students.

Workshop No. 3, under the leadership of Mr. John Rose, will take points E and F. The 4th workshop will be under the leadership of Miss Sara Jane White. This workshop will refer specifically to institutional practice, and will review the whole document to bring to us in the morning, their proposed policies and procedures in institutional practice.

Saturday Morning Session

Dean Mossberg: I would like to begin by considering what we are going to do this morning. For a few minutes I am going to review what happened yesterday, and what we want to accomplish this morning, and then I am going to carry you to four years beyond today, and tell you what we perceive as a result of all this. After that, we are going to have reports by the four committees. We started this process some 18 months ago. Yesterday Mr. Shalinsky read to you what I presented to the State Board of Pharmacy in January on this year, and I can't quote it verbatim, but I think what I said in that document was that the faculty of the School of Pharmacy has been working for one year to change its curriculum. This will be a change that is without a doubt the most dramatic curriculum change that has occured in our School since 1885. The faculty was on the verge of adopting a curriculum in January, so we included that to make sure that we had touched base with the profession and the regulatory agency before the faculty made its pronouncement. The faculty did make a pronouncement in May of this year. Basically, what they said was that there would be a significant practice component in the curriculum of the School and it would start with the first course that the student took as soon as they were registered in the School of Pharmacy. The curriculum will begin in the Fall of 1973 and that we visualize, in keeping with the standards of accreditation that will begin in 1974, that the new curriculum ought to be able to produce a student that meets all the requirements for graduation with a baccularеate degree and experience to receive a license, and to do that without entering into the present, unstructured internship training program. So that has been our goal, and we are in part of the process to reach that goal at this time. The State of Indiana has already accomplished that particular goal in the year 1972. We're not setting about to try to get there until 1975-76. With that as our goal, we need at least 35 places of practice to take care of some 70 students who will be coming out of our program on an annual basis. So at this time, understanding our history, what we are about here, and our stated goal, we're going to have reports from the four workshops that net last evening. Gene, Workshop 1 is first.

Gene Martin: I imagine that most of the workshop leaders have the same kind of feeling that I do this morning; that workshops are a great deal of fun, but they are awfully hard to summarize. The group that I was in was made up of the pharmacists from the Wichita and Salina areas plus three students. We were charged with addressing ourselves to the first 2 points on the addendum under the third heading, that is, "To aid the field instructor so that he will understand a.) his or her relationship to the School and University in matters such as retention and termination of appointment, and b.) his or her relationship to the student". We spent the majority of our time discussing the second point, the relationship of the field instructor to the student, and the student to the field instructor, the kinds of things that both would be expected to do, and

the student-teacher relationship. First of all, I think we reconfirmed the basic tenet that this relationship was to be one of student to teacher rather than employee to employer. Most of the group felt very strongly that this was a very major advantage of this program; that it changed the emotional approach or the psychological approach to the program, the student was not in the store, making money, and the preceptor should recognize, more than in the past perhaps, that this is strictly a learning experience for the student. We also propose that the extern experience should touch on virtually all aspects of the pharmacy operation. We felt that the breadth of the experience was important as well as the depth. We confirmed, I think quite forcefully, that the kinds of things that one does in this sort of program are the kinds of things that one does in the operation of the pharmacy. We agree with the kinds of complete lists that Dean Cotton handed out yesterday, and perhaps in certain instances, we even go beyond that list. We considered the hours that were to be involved, another point that we discussed at some length. While we recognized that the program is basically a 40 hour per week program, we also recognized the fact that there are certain usually extraordinary circumstances that arise that will offer a good learning experience to the student. There are several kinds of examples offered in this context, the one that comes to my mind, is that one of the preceptors in our area is the chairman of the Mental Health Board for the local Mental Health Organization and attendance at meetings of this nature, he felt, would be valuable to the student in his externship experience. I think that we all agree that this sort of health-related experience could contribute substantially to the externship experience of the student. So while we recognize that the program is basically one of 40 hours a week, we also recognize that if we start counting hours very carefully and if the student feels that he is being put upon if he has to spend 42 hours because of circumstances like I just mentioned, that we are going to compromise to some degree the learning situation. We also considered the issue of delegation of authority. The document that we sent out to you indicated that we felt that the preceptor or the field instructor could not delegate his authority. What we intended to mean by that, was that the preceptor was responsible for the entire educational process that the student went through. We did not intend, and I think we can confirm from our group session last night, that we do not believe that the preceptor or field instructor, must,in all circumstances, remain with that student every one of the hours that he is in the store. We recognize that some people have days off, and we also recognize the benefit of working with a second individual and getting a difference in outlook, because we don't all approach everything the same way, so that the student sees that there are various ways of approaching various kinds of problems. We still would like to confirm, however, that it is the field instructor's responsibility and the field instructor should not delegate his authority to some one who he does not think can do a good job. The field instructors are the ones who are responsible for the educational efforts of this program. Any kinds of delegation of authority of this nature should be done with considerable thought. We also talked about the utilization of resources in the community that were not related precisly to the operation of the pharmacy. For instance, one of the field instructors asked if it would not be a good experience to send the student to the local hospital for a day or so to see the operation there. This we agreed, would be a helpful teaching experience. Again, it is up to the preceptor to satisfy himself that the length of time involved in this sort of activity is correct, that the person who is receiving the student understands that the student is a

student and that the needs and interests of the students are served in these sorts of arrangements. We talked about the possibility of cooperative efforts of field instructors. If we have 3 or 4 field instructors in an area and one of them has expertise in a particular area such as convalscence aids, that knowledge might be shared with all the students. We very much encourage these sorts of cooperative efforts, so long as the interest of the student is served. We discussed at some length the feeling that the student must be impressed with the fact that he is to respect the confidences of his field instructor. The student will have access to considerable information that is not for publication, considerable confidential information. This is, I think, something that needs to be stated. We do not expect the student to tell the field instructor's competitors about his pricing schedule, for instance. These sorts of things are common sense, but it should be pointed out that any thing that could represent a competitive advantage should be held in confidence. Likewise the confidentiality of information concerning patient is something that the student must remember. The patients that you see, particularly if you are in your home town, may be familiar to you or may be known by others that you know and you must remember that you have access to information about this patient that no one else, save the physician is priviledged to. This is confidential information and should be kept as such. This is a bit off the subject of the relationship of the student to the preceptor, but I think that it is a point that should perhaps be made someplace in the document.

We did not think that it was proper for a student to work in another store in the same community during his tenure as a extern. The question arose as to whether the student would be allowed to work on weekends, for instance. Dean Dickison said, "They are big boys and girls and if they feel that they have to work on weekends then it's up to them, but we ask them not to work in a competitive situation during the hours when they are not in the externship program."

We discussed, to a considerable degree, personal appearance of the student. I think this whole thing can only be resolved through an understanding between the preceptor and the student. I think that it is vital, and we kept making this point during our session last night, that the preceptor and the student have a detailed, sit-down, face to face, conference at the beginning of this program. It is important that the field instructor explain to the student what he is going to try to do and that they understand what each other expects. I think the general feeling was that this point would not be a problem, provided that we have this sort of interaction and understanding between the field instructor and the student.

We recommended that an in-depth preceptor profile to be developed. You find out when you are talking with a group of people like this that they are all quite proud of their pharmacies and I think one of the things that we need to do is to make available to the students coming into this program in the future some specific details about your operation. We got some of this information on the preliminary response, but the information that we received was not of a nature that could be reduced to any kind of student's guide to preceptors and be consistent with our presentation of what's going on in the various stores.

We then addressed ourselves to the first point on the document, that of the retention and termination of the appointment of field instructors. We talked a bit about the conference between the coordinator of the program and the students and field instructors and suggested that there be a half-day conference at the training site so that the coordinator could talk to the student and to the preceptor during the training session, perhaps half-way through. It was felt that evaluation of the field instructor should be done by the extern and moreover, that this should be a major part of the preceptor evaluation. It was stated quite bluntly by some of the participants that if the preceptor could not function that he should be terminated. It was felt that the best way to evaluate the performance of the preceptor was through the evaluation by the student and by the coordinator.

A point was also raised that any preceptor who has legal or ethical difficulties with the State Board of Pharmacy and is found to be in violation of the rules of conduct of the State Board of Pharmacy should be automatically terminated from the program.

We talked a bit about personality conflicts. What do you do if you have a student with whom you are having a terrible personality conflict? What does the student do? That's a point that we really didn't solve very well. We said that this sort of situation would be arbitrated by the coordinator.

Those were the major points that were discussed by our section. I think that we have addressed ourselves to some degree to both of the points that we were charged with.

Group II. Jeremy Matchett:

The discussion group in which I participated was group 2 and consisted largely of pharmacists within a 40 mile radius of Lawrence. We had 3 students who participated in the group and Dr. Chalmers was with us a good deal of the time. We had a little bit of an advantage in that we had some one there who could help us on some of the items that we had for discussion based upon good solid experience.

Our charge was to discuss the educational responsibility, financial mechanisms and methods of evaluation of the preceptor or field instructor and student. In doing this we looked very closely at the list that Dean Cotton presented earlier in the day and we struck on one item in particular that seemed to intrigue most field instructors, that being a store policy manual. It was interesting that many said that they had a such manual but that it wasn't written down, but was in their head. One or two did say that they had a brief outline written which enabled them to discuss store policies with new employees. This could be the basis on which a complete store manual could be drawn up for use, particularly in the prescription

department in a large store. The format used at Purdue has a place for that item to be checked off when that particular item had been covered by the preceptor. All the field instructors in our group liked that idea very much and felt that a formalized list gave them a basis by which to assure that everything that they wanted to cover in the 8 week period would be covered. Each topic could be documented and notes could be made on this document to assist them in emphasizing areas in which the student needed additional training. This would also help to assure some uniformity, not in method, but in type of situation and degree of coverage. The underlying tone of our group was that considerable time needed to be spent by the field instructor in assuring that he was truly functioning as an educator. It was felt that a check list of this nature would assure that nothing was left out or forgotten. This would also be of benefit not only in the evaluation of the program, and their ability to carry it out, but also in the evaluation of the student. The list would not necessarily be covered in a step-wise fashion but would be something that could be gone through on a regular basis by the field instructor and student so that any questions that may have come up could be discussed and amplified. This method of coverage would have to be done on a regular basis, at least once a week and perhaps every other day, so that the current experience would be remembered by both parties and could be adequately recorded and discussed.

The next item that we took up was that of the financial consideration. We talked about everything that has been listed in the general proposal, such as possibility of relocation costs, mileage costs, working extra beyond the 40 hours and being paid for such extra work. Our group generally felt that working for pay beyond 40 hours was not a good idea because of the effect that it may have objectively on the student-teacher relationship. The suggestion was also made that any financial arrangements could be left to individual cases, that a preceptor and student would arrive at what was the best solution for them in the student's particular situation with the idea in mind that some students do have jobs in Lawrence, that they would have to give up to participate in the program and would lose that income in addition to the expense of driving if they commute or relocating if they move to the field instructor's community. I am afraid that we didn't come to any firm decision or recommendation other than to say in summary that the over-riding factor in financial arrangements should be that this is an educational effort and is of indirect financial value to both the student and the field instructor and both must stand some degree of cost. Maybe it is really a stand off as to who gains and who loses in financial terms.

We next took up a combination of items C and D related to evaluation. We took the thread of thought that was offered by Bob Chalmers in his remarks on the idea of pre-testing and post-testing. Everyone in our group thought that was an excellent idea, that the preceptor would like to have some idea of the level of knowledge and experience that the student had before they began to work together and that at the end of the 8 week period a similar test or post-test would be an accurate measure of what had been accomplished both from the student's point of view and also the field instructor's point of view. This could be used to advantage by the field instructor in the

training of his next student. We went through the document with the detailed listing of the evaluation forms. Those were generally thought to be sufficient. There were a couple of specific questions about which there was doubt as to whether they were appropriate or not. One such question was - were accomodations adequate? This put us back in the financial matters again and we felt that if the financial arrangements were not part of it, then a measure of adequacy of accomodations perhaps was not appropriate in a evaluation form.

In regard to evaluation and grading the question was raised as to whether a pass-fail system was adequate and how much deliberation the field instructor could really put into such a determination. The thought being that if a student had progressed through the School of Pharmacy to this degree, how could you possibly fail him? I had the feeling that although not directly expressed, some of our group thought that a letter grade may be a better way. This was not a firm statement, but I got the feeling that they would like to be able to have a little more input into the grade that was recorded.

We then moved to the general considerations and only had one or two items on which we commented. One important item that we discussed was the work schedule, what hours the student would work in relation to the hours that his field instructor worked. For example, in a 2 pharmacist store, the pharmacists often alternate, one comes in at noon, one comes in the morning and the next week they reverse the schedule. Since the student will not be taking any courses it was thought that the student could adapt his schedule to meet that of his preceptor in a 2 man store where the preceptor didn't come in until noon one week, but that a definite arrangement and determination should be made a week in advance so that the student wouldn't be faced with the situation at the time at the end of the day that he was leaving and the field instructor would say, "Oh, yes, you come in at 8:00 tomorrow morning." It should be on a uniform basis, a week in advance so both field instructor and student know that far in advance when their work time will be.

We also talked briefly about the book allowance and the question was raised which I could not answer, in regards to purchase of additional books if the library already was complete in the field instructor's pharmacy and how recent an edition of these verious texts would be required and expected. We only raised the question, we did not answer it, but I think it's something that the group as a whole should consider.

I think that pretty well summarized what we had to say. I'll have to agree with Gene that work shops are fun, but terrible to summarize.

Mr. John Rose, Workshop # 3

After hearing Gene and Jere's presentations, a lot of my remarks will be much of an echo, because many of the points that they raised were also discussed within our group discussion. We directed our attention to items E and F of the document that was provided for us. E concerned itself mainly with what should be expected of the field instructor to maintaining a high level of competence, the library that should be on hand and, in particular, the patient record system. We might have spent an inspordent amount of time on the library, but we did have quite a discussion about it. To be specific, some of the reference items the group felt would be appropriate and necessary are:

1. Modell's Drugs of Choice
2. Facts and Comparisons (a very handy reference guide in the practice of pharmacy)
3. Clinical Toxicology of Commercial Products.
4. Remington's Practice of Pharmacy
5. Hansten's Drug Interactions
6. Goodman and Gilman (Pharmacology Reference)
7. A medical dictionary

Let me say at this point that there was not very much complimentary talk about the USP and NF, as a matter of fact, the discussion seemed to be very definitely to the point that we should take any requirement for those out of the law, and that they are useless at this point.

It was also felt that the preceptor and the intern should utilize the APHA Handbook of Over the Counter Drugs, simply because that is the only book availble on the subject. It was also, I believe, strongly emphasized that the preceptor should work with the intern in expanding the activity of counseling patients on over-the-counter drugs and that this should be a very high priority item in the training program.

The consideration of patient profile systems was probably the most interesting part of the discussion. I think what was said was that everybody has a patient profile system for a different reason. I believe the feeling was that most pharmacists do not feel comfortable using a patient profile system for the detection of drug interactions, determining drug indications and so forth. What most use it for at the current time is to help Mrs. Jones with her income tax records or to locate a prescription when the bottle has been lost or the number misplaced and find out what those little blue capsules are that she is taking. The thought was expressed that the student coming out will probably be disenchanted with the

way the pharmacists use the patient profile system, because they will probably be coming out with the thought that it will be used for the purpose of detecting drug interactions etc., but, in most instances, this will not be the case. It was still a definite consensis that there should be a patient profile system and if there is not one in the store that there should be some encouragement that the student and the field instructor work together to establish one. It was also felt that the student, because he is oriented to the use of a patient profile system, will probably utilize it in a much better manner than the field instructor who he is working with and will probably expand on it. But, to answer the question as to whether there should be a patient profile the conclusion seems to be a very definite yes. The group, however, did not feel the program could develop a look-alike situation and say that a particular profile system is the way you have to go and this is the way you have to utilize it. It has to be utilized on an individual basis with the field instructor and the patient working together. Also, in the charge we had, the question of continuing education, was raised. Well, we felt that was a moot question at this point because one of the requirements to become a preceptor is that you must maintain a level of continuing education and document this activity to the Board of Pharmacy. So the answer to, "Should there be continuing education?", was a very definite yes. The next question concerned itself with one of the points that Dr. Martin talked about and that is the grading method and grading effectiveness of the student and the field instructor. The problem was not whether or not there should be a grading system, everybody thought there should be an evaluation, but rather how it should be handled. The gist of this question was, "Will a student really be objective in evaluation the preceptor and vice versa?" We could face the situation where the student wants to go to work the next summer with the same guy, so he might be a little bit reluctant to evaluate the clinical instructor in a objective way. The conclusion of the group was that there should be open and frank critiques of both the student and the clinical instructor. I thought, Ed, one of the students in the work shop put it very well, when he said that todays students do not feel reluctant to evaluate instruction. They felt there should be an open confrontation in a very objective way and if anybody's feelings were hurt, then they shouldn't be part of the program. What it really boiled down to is that there should definitely be an evaluation and it should be open so that each party will know what the difficulty is or what their shortcomings might be.

The role of the externship coordinator was also discussed for part of that question. It was felt that the externship coordinator should be much like a union arbitrator. He should make surveys, he should come out and visit individually with both the student and the clinical instructor and he should make recommendations. Dean Dickison was asked what role the externship coordinator plays in the Oklahoma program. I believe the Dean said that he acts as surveyor and recommender. This led to the question of what is to be done if you have a preceptor that is not cutting the mustard. How do you handle this? Does the externship coordinator resolve the matter, does he have the jurisdiction to dismiss the preceptor, what role does he

play? And the Dean, I thought very ably illustrated to us that it always comes back to one guy's decision to make in dismissing a preceptor and that is the Dean. It's not you know, a very pleasant thing to do, but the externship coordinator, should monitor the matter and make recommendations on adjustments and replacements in the program, to a source of higher authority.

We then got into the question of housing and ended with no resolution on the matter. Dean Dickison indicated that they had had no problem in Oklahoma because they clearly tell the student before he gets into the program that there will be no housing allowance and they should go into this with their eyes open. So that's basically the substance of our discussion. I thought we had a very active group and I enjoyed being a part of it.

Benji Wyatt for Sara White, Workshop # 4

I'm pinch hitting for Sara White, who was the leader of the hospital group. We had, I believe, 7 pharmacists, and 1 student in our group. First, we talked a little bit about the program in general and the objectives as outlined, and we had some concern because there are certain areas in the cadre training proposal that the hospital probably won't be able to provide. For instance, one was third party payment, and some hospitals, such as VA hospitals do not participate in third party payment programs, and would not be able to train students in that particular area. In other hospitals, including the one that I work in, all the pharmacy is responsible for is the charging and crediting of medications and the accounting department does the rest of it. If the student is interested in this, or felt that it was necessary to learn more about it, we could send him to the accounting department, but on the other hand, he probably won't need that information if he works in a hospital. Another area of concern is over-the-counter products and health aids. Several of the hospitals do not have out-patient departments in the pharmacy and do not stock over-the-counter products. There was some discussion about what we should do in this area and some people felt we should give them a little course in it, using the handbook of OTC products, but I think that the concensus was that it probably wouldn't be worth the time to do it in that manner, and I would assume that most of these students will also have some experience in retail drugs stores and they can learn it at that time. We then turned to the items that are listed in the cadre training proposal under institutional practice, and we went over each of these seven items, under the assumption that this was really what we were suppose to go by, more than the rest of the document. I will go over each of these, briefly, and tell you what we thought about them, or how we interpreted them.

The first item was monoriting drug utilization. They are talking here about patient record systems and drug interactions and so forth. I don't think there was any real problem or concern in our group about this item. Sara White agreed that she would be happy to help any of us that needed some help in this way. I think most of us had or have patient profile cards and if not, we thought they should probably select certain patients and let the student follow their drug therapy, looking for drug interactions.

The 2nd item that is on this list is prescription procedures, and we really didn't find any problems with that. It was fairly straight forward, most of us thought we could handle this. We thought we should probably emphasize the use of reference books and problems that come up in the pharmacy with the nursing staff and so forth.

The third item is managerial procedures. We felt we should stress the organization of the pharmacy department and the services provided by the pharmacy, inventory control, charging and crediting of drugs and so forth. We did feel that there was one statement under this item which says, "The student will be able to describe and use the accounting procedures which are prevelent in the institution." Now, our interpretation of that would be that this would only pretain to the accounting procedures that are done in the pharmacy. There again, it might be limited to charging and crediting medications and practice procedures. We didn't really think that it was necessary for him to know the whole accounting procedure for the hospital, and maybe that is not what it means, I'm not sure.

The fourth item concerns socio-pharmacy. That sounded real philosophical to us and so we tried to interpret that, and our interpretation was that the pharmacy intern should know what the pharmacist role in the institution is at the present time and what it has been in the past, and what it will probably be in the future. We thought we should discuss with the student the effect that the joint commission of accrediation has had and probably will have on the pharmacy. We felt we might discuss with the student, reasons why one hospital may have an outpatient pharmacy and the other one may not.

The fifth item was ethical and legal aspects. We thought the extern should develop the ability to discuss the legal or ethical situation in practice and he should be able to make a decision when these things come up, about what I'd do in this situation, that he should be able to defend this with his knowledge of the law and ethics.

The sixth item concerned patient communication. We had some concern about this item because since we don't have outpatient departments in some of the hospitals, we can't communicate with the patient, concerning over the counter products, and this sort of thing, and I'm not sure that we can all arrange to have patient interviews on drug histories with the inpatients, but we may be able in some of the institutions, if we can get the doctors to cooperate. The group proposed that we change that to "institutional communication" because we would be able to give the extern some experience in communication with the other departments, like central supply, the nursing staff, and the physicains. We thought that certainly the student should go with the pharmacist when he works on the floor, making monthly or weekly drug inspections. The student would be able to see the problems and discuss them with the nursing staff.

The seventh item concerned communication with physicians and other health care personnel, and included taking prescriptions or drug orders

over the phone. Some of the rest of us take a limited number over the phone, but it certainly would be limited in this situation.

We then discussed a check list for internship experience in hospital pharmacy which was given to us by Dr. Chalmers. The group felt that we should have a check list similar to this so probably what we will want to do is to take this one and maybe some other lists and revise them to suit our purposes. This would keep the instructors on the right track and make sure that they don't overlook certain areas that the student should learn. The group felt that if it was feasible they would like to meet maybe midway through the first seven week period to discuss their problems, or have the students and the instructors meet in a group if we could work it out so we can discuss our problems and the progress that's being made. We decided that we should probably go over this evaluation form that we have for the students and make some changes to make it more applicable to institutional practice, because some of the things on there would not apply and there may be some things that need to be added.

We talked briefly about financial arrangements. Really we are a little pessimistic, when you are working for a hospital it's not like running your own business, you can't just decide to do something and spend the money. I doubt seriously that you would be able to talk the administrator into paying apartment rent or commuting expenses, at least in my situation. I'm lucky, I'm in Lawrence, this probably won't come up, but it could be a problem if we are required to furnish expenses.

That summarizes the items we discussed in our group.

Dean Mossberg:

I would like to read into the record four points that were sent to you in the first letter that went out announcing this program. So that the record can also have this I will tell you how we arrived at the process of getting you here. We did visit with one group about this and they were curious and perhaps you all are curious.

The process started with the Tripartite Committee. When we agreed to carry forward this program, we asked each member of the Tripartite Committee to recommend pharmacists that they felt would be interested and would be qualified to be in this program. That list was submitted. Two members of the Tripartite Committee then had some very valuable assistance through the records that are in the board office. Joe Shalinsky and I, one afternoon, very slowly and very carefully looked at every pharmacy in the state of Kansas and asked ourselves whether or not they might be in an appropriate place to join the program. About 100 letters were sent out (there were only 620 potential places to ask in the state of Kansas) and there was a request for a response. About 35 responses came back from that request and I must say that just about everybody that responded is

sitting here in this room, with one or two exceptions. A few others went out after that as people discovered the program and had enough gumption about them to say, "Hey, I want in it." They were asked to consider to come in too. These are the points that we made at that time:

1. Because we told our students last spring that they would be asked to leave the campus if they would, the following spring, we sprung this on them so to speak. We know their problems, we put this down as a point. Student compensation for work performed will not be part of the program, however we hope that the preceptor will be in a position to provide some relocation costs, (the student will be maintaining a residence in Lawrence.) The School hopes to keep these costs at a minimum.

2. The preceptor will be involved in setting the standards for the course at a workshop. We are doing that.

3. It's likely that the preceptor may not have a student in the first year of the program because perhaps some 20-35 will be selected and only 10-15 will be utilized.

4. This is a pilot program and will be subject to critical evaluation.

That's the first word that you had and we are trying to solve all four of those points right now.

We are now beginning a process of writing the actual guide that will come out as a proceedings. The proceedings will have in it all of the words that have been said here thus far. What we are going to do now is to begin to agree on what will actually be in the guide as it is delivered to you.

DEVELOPMENT OF POLICY

Introduction

Mossberg: At this time we shall read together all of the major aspects of the program that have been proposed. We will cover each major point and allow sufficient time for discussion of the mechanisms employed in this program. The major purpose of this activity is to assure that in future years we can refer back to our deliberations here today and tomorrow should questions arise about the intent of our structured externship program. We shall not follow Robert's Rules of Order but can surely agree when there is general consensus on a basic mechanism to be employed in this program.

I. Objectives of the Externship Program

The objectives of this program as stated in the Kansas Regional Medical Program were read.

a. Following the reading of the objectives a general discussion of teaching methods to be utilized along with some questions about specifics

of our current professional program within the School of Pharmacy.

b. The group reviewed the fact and discussed the point that we hope for some change to be introduced in the practice of pharmacy as a result of this program. We hope to see changes, to be sure, in internship activity, but we also expect that the instructors will introduce some changes in the practice as a result of this program.

c. Mr. Shalinsky, representing the State Board of Pharmacy, made a plea that this program not be a repeat of our didactic program within the School of Pharmacy, but that we as a group make every effort to utilize the practice situation made available to our students as a training laboratory.

d. Dr. Robert Chalmers, our consultant from Indiana, poinced out that these are objectives and goals which we hope to attain in our program, and cautioned us that they may not all be attained in the first year of the program, but that it is important to keep all of these objectives and goals in mind as the program evolves.

e. The group expressed general consensus for the objectives and goals as stated in our preliminary program.

2. Relationship of Field Instructor and University

There followed after the general reading of the relationship of the field instructor and the university a general discussion concerning the title, rights and priviledges and the methods by which a field instructor could be terminated from the program. It was agreed that an offertory letter would be written and placed in the proceedings so that it could become part of the permanent record of our program.

3. Some Considerations in the Area of Mechanics of the Program

a. Student Teacher Relationship

The group agreed that there would be a relationship based on student and pharmacist acting as a field instructor and that the program would terminate hopefully the employer-employee relationship that currently exists in our internship program.

b. Length of Program

The group agreed that the program will have a minimum of 40 hours per week and that this will generally be conducted Monday through Friday. The Board representative, Mr. Shalinsky, noted that the Board will accept a maximum of 320 hours for the program. This works out to approximately 46 hours per week in our 7 week program. It was agreed that the actual time of instruction will be worked between the student and the instructor and should there be any need for arbitration the coordinator shall act as the

arbitrator. Ir was also noted during the discussion of the time required, that for the practical experience to count, it would not be gained unless the student was actually present in the place of practice. Should illness or some other situation arise during the course of the training period, it is expected that the student will make up the time that is missed.

c. Delegation of Authority of Field Instructors to other Pharmacists

The group agreed that the field instructor can delegate to other pharmacists the authority to work with students, but it was also agreed that the field instructor cannot delegate their responsibility to assure the quality of the training program. It was further agreed that the field instructor should have direct supervision of the student for a minimum of 2/3 of the clock hours of the program.

d. Interaction of Field Instructor and Program Coordinator

The group decided that the coordinator should have a minimum of 1 visit at the site of instruction during the time the student is in a practice situation and that generally a 4 hour time period will be utilized by the coordinator for interaction with the field instructor and student at the site of instruction. It was also noted that if it became evident that a return call is necessary this should be accomplished.

e. Financial Arrangements

It was agreed that there would be no direct financial renumeration to the student in this program. There was considerable discussion concerning the allowance of "displacement costs" for the student in this program. The final policy that was agreed upon was that during the pilot project we would allow displacement costs. These costs will be based on negotiation between the student and the field instructor with the coordinator acting as mediator if needed. The basic policy of this program will be to eliminate this aspect of the program when the program is out of the pilot stage. The group further agreed that a student would not be allowed to work for pay in any pharmacy within the community during the period of his or her externship training.

f. Policy on Textbooks

The group agreed that the following texts should be available to students at each site.

1. Remingtons Practice of Pharmacy

2. A textbook in toxicology (Gleason, Goslein, & Hodge)

3. A textbook on drug interactions (Hansen)

4. A standard pharmacology text

5. Facts and Comparisons

6. APhA Handbook on OTC Drugs

g. Policy on Patient Profiles

The group discussed the necessity for a patient profile system. The following policy was adopted by group consensus. It will be the policy in this program that a patient profile will be required in each pharmacy that participates in the structured externship program. The type of system was not specified. It was noted that there are three ways that a system could come into the program.

1. The student will utilize a system that already exists in the pharmacy.

2. The student may assist in starting a profile system that will be maintained after he or she leaves the program.

3. The student will start a profile system which he or she alone will maintain and utilize during the period of practice and the system will expire when the student leaves the practice site.

It was noted that a third mechanism will be allowed only during the pilot project and that after the program is fully developed that there will be no need for this type of an emergency system for introducing a profile system into a pharmacy.

h. Continuing Education Requirements for Field Instructors

It was agreed that we shall have as a basic requirement the same rules that currently exist for preceptors in the current internship program.

i. Student Evaluation

The group agreed that a student should have a pre-examination in the area of practice and that the results of this examination should be made available to the field instructor and student as they begin working together. It was noted that the results of the examination would be priviledged information.

The group accepted the various forms prepared prior to the program with the exception that the hospital group agreed to produce forms specific to institutional practice.

j. Student Grading System

The group agreed that the grade will be on a pass-fail basis. There followed much discussion concerning the policy of sharing the results of the evaluation with the State Board of Pharmacy. The group finally agreed

that this record would be shared with the State Board of Pharmacy since they will need to evaluate this program for future direction of practical training within the State of Kansas.

k. Day to Day Student Activities

The group agreed that a check list should be provided concerning the activities the student would be expected to participate in while working at the practice site.

l. Student Log Book

It was agreed that the student shall maintain a daily log and that one of the more important aspects of this log would be to have at the very beginning of the log some comments concerning the policy of the pharmacy in which the student was going to gain his experience. The log will be available to the coordinator at all times and will become part of the final documentation concerning the activities of the student at the practice site.

m. Additions to Policies and Procedures

The group agreed that there would be need for some additional policies to be established from time to time. That in the interim period between the first and second conference these could be worked out by consensus between the field instructor and student and coordinator. An important aspect of the second conference will be to identify problem areas and elaborate on the policies and procedures of the structured externship program.

The program was concluded at 12:00 noon on Sunday, November 19. Dean Mossberg thanked all those present for working so diligently to wrap up the program within such a short amount of time allocated to the project.

Second Meeting of Field Instructors

in the

Structured Externship Program

Welcome and Opening Remarks

Dean Mossberg: It is my pleasure to welcome you, our field instructors back to the campus to this our second and final training session in the Pharmacy Cadre Training Program sponsored by the Kansas Regional Medical Program.

The Structured Externship Program appears to be well received by both the students and as evidenced by your presence here tonight, by the field instructors as well.

The program for this evening and tomorrow will consist of the following activities:

1. A short report by Dr. F. Gene Martin concerning how this program will be fitted into the new pharmacy curriculum to begin in August of this year.

2. An overview of our first experiences in this Externship Program.

3. Summary reports from the students who have completed the program.

4. Reports from Mr. Joseph Shalinsky concerning activities of the State Board of Pharmacy.

5. In the morning, starting at 9:00 a.m., we will have summary reports, from the several field instructors in attendance.

6. We shall conclude by reviewing the objectives and the mechanics of the program with an eye toward the future.

ADDRESS: Dr. Gene Martin, School of Pharmacy, University of Kansas.

As Dean Mossberg indicated to you, I want to take a few minutes to go over with you the new curriculum that the School of Pharmacy will be embarking on next fall. The class that enters the School this fall will be the first class in this new sequence.

The new curriculum differs from the old in several respects:

Firstly, the new curriculum contains a significant practice component spread throughout the three year program. Starting with the "Introduction to PRactice" course, which the students will take the first semester of their professional year, and ending with the terminal dispensing course in the fifth year, the students will be continually exposed to some aspect of pharmacy practice.

Secondly, the new curriculum contains significantly more elective hours and we have introduced the idea of "directed electives" in which we are asking the students to make a choice of elective courses offered by the various departments of the School. The student will have more choice in pharmacy elective courses than they have had in the past.

Thirdly, we have what is known as "core" requirements in the basic pharmaceutical sciences of medicinal chemistry, pharmaceutics and pharmacology. The student will be required to take nine semester hours of core courses in each of these three departments, as well as elective courses in one or more of the three departments. This gives the student a little more leeway; if his interest is mainly in medicinal chemistry, then he can concentrate his electives in that area.

What I would like to do at this time is to briefly discuss each of the courses that we are considering to be "pharmacy practice".

In the first semester of the 3-P year, the student takes the first practice-related course called "Introduction to Pharmacy." This is a four-hour course, containing offerings of two courses that are familiar to you and a couple of things that we consider to be innovative:

A) A survey of pharmacy - A consideration of where the practice of pharmacy takes place, the legal and ethical responsibilities of the pharmacist and the relationship of the pharmacist to other practitioners.

B) Pharmacy Mathematics - A lecture, laboratory and auto-tutorial offering in pharmacy math.

C) Introduction to Practice - Exposure to practice in the actual setting, using the facility at Watkins Hospital and selected retail sites near Lawrence. This portion of the course will carry over into the next semester.

D) Introduction to drug dosage form and drug identity. To familiarize the student with dosage forms, trade and generic names, manufacturers and therapeutic indications.

In the second semester of the first year, the course entitled "Pharmacy Practice I" is offered. This is a continuation of the last two portions of Introduction to Practice listed above. The student also has available that semester an elective course in Pharmacy Accounting.

In the fourth year, the student will take Pharmacy Practice II, a continuation of the exposure to the practice of pharmacy. The fourth year student will be doing some limited dispensing of drugs at Watkins Hospital at this time. This course will also continue through both semesters because of scheduling and space limitations, although the student will be enrolled only during the fall semester. The student will also be able this semester to take the first elective course in Hospital Pharmacy.

The second semester of the fourth year contains a course called "Introduction to Clinical Pharmacy". This is a lecture course offered at Lawrence and the Medical Center to prepare the student for the clinical and community externship program. The mechanics and background of the two programs will be gone over, allowing a better utilization of time when the student is in the clinical and community program.

In the fifth year, the student will be in full time residence at Lawrence, either the first or second semester. During one of the semesters, the student will take the traditional lecture and laboratory course in senior dispensing, along with pharmacy law. In the other semester, the student will be taking the clinical externship course and, if elected, the pharmacy practice externship.

Many of these courses contain a practice component that we feel we are justified in certifying as meeting the requirements for practical training for licensure. We feel that we can certify between 900 and 1000 hours of practical experience during the three years of the new curriculum by counting the time that the student is in the actual practice situation. If the Tripartite Committee and the Board of Pharmacy agree, we plan to certify, in addition to the two externship programs, some 300 additional hours of externship credit.

School of Pharmacy - New Professional Program

Explanations:
(1H) means course will be taught in first half of semester; (2H) the second.
Those courses not marked with 1H or 2H are full-semester courses.
Available Pharmacy Electives are placed at that point in the curriculum where they could be taken earliest by the student, according to prerequisites.

Third Year (3-P) - Fall Semester

P&CB 718 (180)	Mammalian Physiology	4
P&CB 719 (180L)	" lab	1
	OR	
Bioc 300 (150)	Intro. Biochemistry	4
Bioc 301 (150L)	" lab	1
PHPR 300 (160)	Intro. to Pharmacy	4
MDCM 521 (121)	Intro. to Drug Assay	2
Electives (pharmacy)		6
		17

Available Pharmacy Electives

P&Tx 676	(205)	Principles of Disease	2
P&Tx 674	(274)	Medical Terminology & Anatomy	2
P&Tx 692	(179)	Orientation to Research in Pharmacology and Toxicology (1H)	1
APCP 682	(282)	Drug Analysis	2
APCP 690	(280)	Undergraduate Research in Pharmaceutical Chemistry	1-5

MDCM 655	(255)	Lab Experience in Medicinal Chemistry (2H)	2
MDCM 660	(210)	Chemistry of the Disease State (2H)	2
MDCM 670	(230)	Chemical Toxicology (1H)	2
MDCM 690	(280)	Undergraduate Research	1-5
MDCM 692	(282)	Problems in Medicinal Chemistry	1-5
PHPR 315	(53)	Public Health	2

Third Year - Spring Semester

P&Tx 678	(210)	Pharmacology I	5
APCP 632	(166)	Pharmaceutics I	4
PHPR 320	(55)	Pharmacy Practice I	1
Electives (pharmacy)			7
			17

Available Pharmacy Electives

APCP 690	(280)	Undergraduate Research in Pharmaceutical Chemistry	1-5
MDCM 665	(122)	Clinical Medicinal Chemistry (1H)	2
MDCM 655	(255)	Lab Experience in Medicinal Chemistry (2H)	2
MDCM 690	(280)	Undergraduate Research	1-5
MDCM 692	(282)	Problems in Medicinal Chemistry	1-5
PHPR 335	(58)	Pharmacy Accounting	3

Fourth Year (4-P) - Fall Semester

P&Tx 680	(220)	Pharmacology II	4
APCP 634	(167)	Pharmaceutics II	4
MDCM 651	(211)	Organic Medicinal Agents I	4
PHPR 400	(75)	Pharmacy Practice II	1
Electives (pharmacy)			5
			18

Available Pharmacy Electives

P&Tx 684	(284)	Prediction & Prevention of Drug Toxicity	4
P&Tx 696	(280)	Pharmacology and Toxicology Forum	2
P&Tx 725	(225)	Biomedical Bibliography (1H)	1
APCP 680	(290)	Stability & Equilibrium of Pharmaceuticals (1H)	2

MDCM 665	(122)	Clinical Medicinal Chemistry (1H)	2
MDCM 720	(215)	Bibliography in Medicinal Chemistry	1
PHPR 505	(102)	Hospital Pharmacy I	3

Fourth Year - Spring Semester

MDCM 652	(212)	Organic Medicinal Agents II	3
PHPR 420	(80)	Introduction to Clinical Pharmacy	1
APCP 640	(170)	Drug Standards and Quality Assurance (1E)	1-2
Basic Pharmacy Science Electives			4
Electives (pharmacy)			7
			16-17

Available Pharmacy Electives

P&Tx 682	(282)	Clinical Pharmacology	4
P&Tx 694	(180)	Problems in Pharmacology and Toxicology	1-5
P&Tx 698	(199)	Pharmacological Therapeutics (1H)	1
APCP 675	(263)	Biopharmaceutics I (1H)	2
APCP 676	(276)	Biopharmaceutics II (2H)	2
MDCM 653	(253)	Organic Medicinal Agents III (2H)	2
MDCM 760	(236)	Chemistry of Drug Absorption, Metabolism, and Excretion (2H)	2-3
PHPR 435	(83)	Pharmacy Management	3
PHPR 445	(86)	Topics in Pharmacy	2
PHPR 725	(225)	Radiopharmacy	2

Fifth Year (5-P) - Fall Semester

*PHPR 490	(97)	Pharmacy Practice III	5
Basic Pharmacy Science Electives			8
Electives (pharmacy)			4
			17

Available Pharmacy Electives

*MDCM 760	(236)	Chemistry of Drug Absorption, Metabolism & Excretion (2H)	2
*PHPR 475	(93)	Cases in Pharmacy Management	1

Fifth Year - Spring Semester

*PHPR 600	(275)	Clinical Pharmacy Externship (1H & 2H)	8
Electives (pharmacy)			8-9
			16-17

Available Pharmacy Electives

*PHPR 625	(285)	Pharmacy Practice Externship (1H & 2H)	8

*These courses will be taught both semesters, fall and spring.

**APCP 640 (170) The first half of this course is taught in the first half of the semester and is required of all students (1 credit hour). The second half is taught in the second half of the semester and may be chosen for pharmacy elective credit (1 credit hour).

Students must choose four additional credits of basic pharmaceutical sciences (P&Tx, MDCM, APCP) from any of the above semesters, except research courses: MDCM 690 (280), APCP 690 (280), P&Tx 692 (179), and P&Tx 694 (180). In exceptional cases these courses may be counted as part of the forty hour basic pharmaceutical science requirement with prior approval of the Professional Policy Committee.

ADDRESS: Dean Howard Mossberg, School of Pharmacy, University of Kansas

Dean Mossberg: The basic guidelines for our program were established by a three day workshop held in November of last year. The evaluation forms were revised after consultation with an educational specialist on the staff of the Kansas Regional Medical Program. A major function of this conference will be to review the guidelines now that we have some experience in the program.

Two aspects of this program will not be achieved: The pre-test must be redesigned, consequently we will not attempt a post-test during this semester; and money for reference books in the pharmacies was eliminated from the budget, consequently we are now in the process of ordering books each field instructor may desire.

Seven students have completed the program and eighteen students are now in the field. The seven initial students were all visited twice, all eighteen students now in the field have been visited. Of the original 35 field instructors brought into the program, nineteen have or have had students in their pharmacies.

The general attitudes of the field instructors and students appear to be excellent in all except one case and since the pharmacy has a second

student and the situation appears to be a positive one, I would conclude that the negative attitudes were caused on the part of both parties by a language and communication barrier unique to the student in question.

I hope that some of the general comments given by the field instructors and students may help us in our deliberation over the next day and a half.

Student Comments

1. The pre-test (though good) is not an instrument for demonstrating how much we knew before and learned in the program though there are some applications.

2. "FI" said several times that he felt he was getting as much training and education from the program as I was. It allowed him to look at what he was doing with renewed interest and re-assess his approach to the practice of pharmacy. We both hope the program will continue.

3. RE: Rx product~~ is will have to require student initiative for a couple of reasons:
   1) FI doesn't know what you know or don't know.
   2) You don't always have time to read information, especially when the scripts are coming in by the handful. The extern should review product information (after the flurry).
   3) The FI is usually a busy person, he is busy, you are not for a portion of the day.

4. "FI" and "others" were great to work with and I consider myself extremely lucky to have gotten ____ for my externship. I really enjoyed myself.

5. Expand the program to cover a larger period of time. This program was so beneficial to me that I wished there were more of it. It seemed that I was just getting into the swing of things (i.e. an asset to the pharmacy) when the program ended. This externship was probably my most valuable experience since entering pharmacy school.

I think that the practice was influenced because an extern keeps looking over the shoulder of the pharmacist and copying his every action.

6. Just my presence as a student made the other pharmacists unconsciously check their own professional practice. I became a constant challenge to his drug knowledge because of the questions I asked.

This program has given me more than any other college course (ouch, H.E.M.); of course, it isn't fair to compare this program with a classroom course. It was a learning experience that will stay with me always. "X" was an excellent instructor and I enjoyed working with him.

7. I feel that the experience I obtained via the program could not have been obtained through class work or as a paid employee in the traditional internship program. I was fully satisfied with my experience and professionalization.

Field Instructors Comments

I believe the program is a giant step forward for the student in pharmacy because he (or she) can gain in confidence, experience, and know-how in ways that could not be learned in the academic classroom.

My fellow pharmacists agree with me that the experience of a structured externship program was very stimulating, rewarding, and exciting.

Bad experience for me and my staff because of little drug and disease state knowledge. The language barrier was also a problem.

Student had an excellent attitude which makes a good externship program. I am confident that the results will be seen in the immediate future.

Communications of the instructor and student are essential to the success of this or any program.

I believe in this program. It is a very good approach to practical application of the knowledge acquired during pharmacy school. I learned as much in reverse (practical back to theoretical).

With the instructor and student coming into the eight weeks knowing that it is to be a shared experience there is more interchange between the two.

Summary

The reports are for the most part glowing, but they do deserve some analysis. The hours we spend together should produce some directions for the next three years. We need to establish a clear cut goal for this program in the years ahead, and then set about to work toward this goal. The curriculum which accompanies this report should be helpful to our deliberations.

Reports of Students

Miss Pat Lonnon: My name is Pat Lonnon and I worked for Tom Hitchcock from Baldwin. I previously had 1700 hours as a pharmacy intern. I felt that I knew the mechanics of pharmacy, label typing and the like, and I looked forward to working with OTC products. The big thing that I noticed was that each night I was to write in my log book my activities for the day.

I discovered that I didn't have any big things that happened each day, just a number of little things that began to add up. I feel they certainly helped me polish up what I knew about pharmacy, and helped me understand the reason behind some of the things I had done before, while I worked as an intern.

Mrs. Geraldine O'Brien: I worked at Medical Arts II with Mr. Newton King. It is a small prescription shop and because of the smallness, there was a lot of contact with all phases of pharmacy. I feel I learned a lot about patient contact and how to handle patients as they enter a pharmacy. I also learned that the prescription itself is not the most important object in the pharmacy, it is how you can help the patient that enters with the prescription. I also had an opportunity to look at the business aspect of the operation of the pharmacy, something I had not had the opportunity to really look at before. It started every morning with the opening of the store and then every evening with the ringing off of the cash register. I really enjoyed this program and I feel that I have learned alot. I was also pleased to note that my preceptor was willing to learn from this program as well. I just want to say in an overall view, that this is really a tremendous program because in most cases, the students do not have much in the way of experience or if they do have experience, it is usually in the framework of a monetary system with a job-boss relationship in the background. I believe this program with its student-teacher relationship in the pharmacy is more beneficial to the student and they really learn a lot from it.

Mr. Edwin Wolkar: My name is Ed Wolkar and I went to Galena, Kansas, to the Gilstrap Drug. I'm probably the oldest student that went out into this program. Mr previous experience probably caused me to look at this program a little bit different then the others. I think that what I have been hearing from the other students, was that my field instructor was no different then the rest. He was very open about things that went on in the pharmacy, which I really appreciated. The first day on the job, I sat down with my field instructor and discussed all the aspects of his pharmacy practice. It should be noted that I had 1400 hours as an intern in this store and I must admit th[illegible] I thought I knew the store, its personnel, and its policy, but getting on this program a little bit, I realized how much more there was to know about this business called pharmacy. I felt that the management part of the pharmacy was the most interesting and most enjoyable aspect as far as my training was concerned. I'd been in management positions in this industry for 16 years prior to my returning to school. One of the experiences that I really gained much from in this program was in the area of pricing and buying of pharmaceuticals. Mr preceptor allowed me to do all the buying as he looked over my shoulder.

I would like to say that the overall experience was an outstanding one. I realize that classroom work is very important to get the basic fundamentals. In my particular case, coming back to school later in life. I felt it was nice to get away from studying for a change, and lead a more or less normal life. I do feel it is an excellent program.

Mr. Ronald Duncan: My name is Ron Duncan and I worked for Harley Russell in Leavenworth, Kansas. I had about 1600 to 1700 hours internship prior to the trip up there. I felt that I had before going there, a great deal of experience, but I didn't realize there was so much more to be gained. I feel that there is a lot that you can learn from working in an externship situation, more then you can in a regular internship program that we have been accustomed to, in that there are many things that it is not feasible for an employer to pay you to do that you must know or learn, which can be done in the externship program. I was once asked by Dean Mossberg after some time in the program, to rate the program compared to our structured internship program. He asked me to compare the 320 hours in this program with the 1600 to 1700 hours I had in the regular program. I looked back, and I said that at least in my own opinion, I thought I had gotten at least 1000 hours of experience as compared to the regular 1600-1700 hours in the other program. I know that some people didn't have an internship experience before they went into the program, so it would be hard to compare. But, the ones that I have spoken to that had most of their internship prior to this time, felt approximately the same way I do; I have everything that I had hoped for in the program. Therefore, I was so glad to see the program that Dr. Martin presented to you on the pharmacy practice courses. I can remember for the first two years we were in pharmacy, that the thing we were really coming out on was that we didn't get any pharmacy until we were in the fifth year.

Mr Neil Abel: My name is Neil Abel and I worked for Hugh Polson in Wichita. You can see by just the way I talk that Hugh had me busy answering the phone and getting all he could out of me. But, I am a little different then most students, I had about 25 hours of internship and about four years in the service. I came into the program with the idea that I wanted more business experience. I've talked to Dean Cotton about this and I feel we should have more business courses in pharmacy school, because, as you know, if you can't make a living in pharmacy, you are going to change to something else. But, Hugh has been real honest with me and has taught me a lot of things and even though I've had a lot of experience, I overlook some things. Each prescription you fill, each little thing you do, there is something you overlooked and each time you do it just puts it into your memory bank just a little bit more. I've asked Hugh a lot of questions that maybe he didn't want to answer or know how to answer, but he has really been truthful with me and that's what I really appreciate. I enjoyed being able to tour Fox-Vliet besides McPike in Kansas City and Hugh has taken me to quite a few of his meetings; all the Heart Association meetings and Mental Health meetings, which are things that we don't get to see in classrooms at all. This is part of the practice of pharmacy, at least that is my opinion. I really can't say enough about this program, I really enjoyed it.

Dean Mossberg: At this time I would like to invite Mr. Joe Shalinsky to join me at the head table and for the remainder of this evenings session have him explore with us the direction we are going with this program. The course of the program is set, but the problem that we have to face in the future concerns just what this program means in terms of registration and licensure in the state of Kansas. I also suspect Joe, we should also face the problem of reciprocity and the whole changing scene in the area of internship-externship experience. The National Association of Board of Pharmacy have been involved in it for the last four years. My personal opinion about all this has not changed from the time we started this program. We knew that our curriculum was going to be changed and that we were going to put a significant amount of practice into our course of instruction.

Mr. Joseph Shalinsky: Well Howard, I would like to kind of tell you what I think that the feeling of the Board is. Of course, as you stated, we do talk to a lot of people about internship and externship and there are a lot of questions. People say, what is going to happen when school is in session year around. I'm sorry I missed all of Gene's presentation tonight, but one fellow asked what would happen if a fellow spends all his time in a hospital setting and preparing for just one type of pharmacy. As I understnad it, Gene said that some of the portions of the certain courses would be hopefully acceptable, and perhaps Gene covered some of the questions. But, I think that the reports of the students kind of reflect that the overall experience is so much more effective then what they have had in the past that there is no room for doubt that it can't be anything but a success. We've said in the past that nothing can happen to the internship program but to improve it. You all know that every year the Board of Pharmacy does make a report to the convention at least those of you who have served on the Board know. I would like to read just one little sentence in the Board's report to the convention this year. It says, "It is with hopeful anticipation and a great deal of satisfaction that the Board views the efforts of Howard Mossberg and the dedicated group of pharmacists who are currently participating in the externship pilot program." So, I think that the Board is looking with favor on the program, we've discussed it alot and I think that generally they are pretty happy with it. Although we haven't really looked into the details of it and I hope that we can kind of study it at this time, at least today.

Dean Mossberg: Joe, I think maybe at this time we could talk a little more about the specifics. I'm wondering if our goal is realistic in terms of this program. Dr. Martin did state very clearly what we think is our goal; a complete structured externship program, they will be coming to us for the most part without internship training in the traditional manner. Maybe one or two out of 85 students will have some experience in the traditional internship training, let's be gracious and say five do, that means 80 will not. They are embarking upon a program that is scheduled to give them approximately 1000 hours of pharmaceutical experience, if they take the whole program. Is it

or is it not realistic to assume that at the end of that time, they will have sufficient experience to be licensed by the Board of Pharmacy to practice pharmacy in the state of Kansas? Now maybe you are saying that can only be answered at the end of three years and that may be true, we may not be able to answer that question this evening. But, I think we can at this conference ask ourselves whether or not this is a realistic goal for the next three years. To our knowledge two states have already said that not only is this a realistic goal, it is their program, those states are Indiana and Maryland. I haven't kept up on the literature in this area and maybe someone out there could tell me whether there are more states besides Maryland and Indiana that have come to this conclusion. But, at this point in time, I think that I can say personally that it is realistic to expect that we can accomplish this and my goal is set in that direction and I'm wondering if your goal and the goal of all these individuals in the room is the same.

Mr. Joseph Shalinsky: Well, I think that it is reasonable to expect that it could be accomplished. As a matter of fact, I think that it is even more reasonable that we would have better qualified people to step into the pharmacy practice situation after having completed 1000 hours of structured externship then having attended haphazard internship on the 2000 hour basis. This doesn't include all interns on an overall basis, because some interns get very fine experience while others get very poor experience. This has been a problem, there hasn't been any overall consistency. I think that this program, at least there is a definite consistency.

Dean Mossberg: As I traveled around and talked with some of our field instructors, there was some confusion in regards to the goal of the training session. Some have said, "it would be my goal to have the individual who goes through this program ready to step in and run this business." I don't see that as a goal, I don't see it as a requirement of the State Board of Pharmacy, but it is one goal that has been expressed by a number of people. We saw this in Oklahoma when Hugh Polson, Jim Gillespie, and I went down and reviewed their program. There was some confusion about just what the goal of the program was and some people would like to interpret it as both a professional goal and a kind or terminal degree in the business aspects of the program. Not to say that we are eliminating the business aspects, but I really don't see this 1000 hours that we are programing here as realistically having this sort of a goal.

Mr. Joseph Shalinsky: I think what you have to try to accomplish Howard, is to make a student feel at ease in a practice setting. How many pharmacists have you talked to, have taken students out of school who have said that they don't know a darn thing about the drug store. They come in and are frightened to death; they are afraid to meet a customer. If you can just get them to feel at ease, to get an extern to feel at ease in a pharmacy setting and let them know what certain products are. Someone asked a question a while ago, "should an extern be allowed to choose whether or not he wants to spend any time with OTC?"

I think he should be required to do it. I think an extern should have some of each of the facets of the practice, so that when he goes out, he should be qualified to step into any situation. He may not need the practice in that situation, but its an old saying that when we license them we give them one license and they are suppose to be able to practice in any setting. Maybe we don't consider OTC a setting, you know, to license them to practice, but nevertheless, we do consider that there is enough there that requires some professional knowledge. We feel that a student should be able to decide that if a patient comes in with a problem that requires a nasal aspirator for an infant and you are out of a nasal aspirator, he should be able to advise some alternative, maybe an ear syringe. He should be able to tell them that they should be deflated before they put it in the nose, some of them don't know that. We feel that they should be out there doing that type of thing. Every time that I go to KU to any type of a meeting where there is a student present, after the meeting, the student comes up and asks how many questions are going to be on the State Boards that relate to OTC and devices. Two or three years ago they were scared to death of these questions. We don't get quite so many anymore, you must be teaching them a little bit, or maybe they are getting exposed through other programs. But, they didn't know a thing about it; some of them didn't know how to use a fountain syringe, didn't know anything about a vaporizer or a humidifier or lots of little common things that we take for granted. Pharmacy students haven't even been exposed to these things. They didn't know anything about patient records. Of course, now the examinations do have questions relating to these things. We feel that they should be subjected to some of each facet. You didn't mention it Howard, but we're constantly getting calls, and this is going to be able to iron itself out; but there are still some who are not involved in the externship program that feel that field instructors are at an advantage from an economic advantage. They feel that students are being selective, hired away from them, and I know this will all resolve itself.

Dean Mossberg: There needs to be a program that will educate the pharmacist in the state of Kansas concerning the mechanism whereby we are offering externship training within the state of Kansas. It is true, Joe, that we need to talk about this program to the entire state now that we have completed a semester of it. And we will in the future try to educate our pharmacists in the state concerning this program and add more pharmacists so that we have a better geographic distribution and hopefully prove to all pharmacists that it is a professional responsibility and certainly very little economic advantage to participate in the structured externship program. At this time, I believe that we can conclude the evening session. Tomorrow morning we will have a report from our field instructors and we will look at the mechanism and evaluation forms.

Reports from the Field Instructors.

Dean Mossberg: Good morning, it is now our intention to have each field instructor who has had a student complete the program give us a short report this morning. Each of these four gentlemen has had the opportunity to carry a student through the program and has turned in an evaluation form. Let's hear from each of them at this time. Gentlemen, please give us from your point of view your impression of this program.

Mr. Darryl Warren: My name is Darryl Warren and I practice at Memorial Hospital in Topeka, Kansas. I think we were very fortunate to have as our first student during the first half of the semester, a very bright male student. He hadn't had much practical experience, but he had had the opportunity of working in a drug store, although he had not worked on the prescription case. So when he came to our hospital we of course put him right to work; we have a large out patient clinic facility and we fill a lot of outpatient presciptions at our hospital as well as inpatient prescriptions. Therefore, we were able to give him a taste of every facet of our operation and I know that he told us many times during the seven week period that he was very thankful that he had the opportunity to work in a situation where there was a lot of prescription volumn and also, he had the opportunity to talk right to the patient and to work with the patient. I realize while working in a drug store there was no structured training. As I look back on the time I graduated from the University and then went into my internship period, I was just turned loose in the drug store. I know it was no fault of my employer, he was busy, but he didn't have time to help me learn of a lot of things that I didn't have the opportunity to learn while I was going to college. I had to work at other jobs where I could make money so I could pay my way through school, and so I can remember from my own experience that the non-structured internship program was really a sad thing. What I learned, I had to learn on my own and I was just thrown into the situation and I had to stumble a lot and feel my way around without much help. I am convinced that with this structured program, that we now have with a one teacher and one student ratio, that the students are really going to gain much from it. Also, as a teacher, I myself, gained a great deal from the program, because I was able to learn of some of the things that are going on at the University and some of the latest ideas, theories, and some of the latest drug interactions, etc, of which I had little knowledge. We have three pharmacists that work at the hospital with me and they agreed with me that it was a very exciting and stimulating type of program for we practicing pharmacists that work at the hospital as well as the students and we really can't say enough for the program.

Mr. Tom Hitchcock: My name is Tom Hitchcock, I live in Baldwin. I had a student by the name of Pat Lonnon for this first externship go around. I've got a student, Tom Hartmann, down there now. About 15 years ago I was sitting in a hotel room in Wichita with a good friend of mine and another colleague and the one fellow said, "I would not ever suggest, induce, or encourage my son to go to pharmacy school,"and I'm real pleased to say that most people don't feel this way. I think this program in a living example that the school and the people in the field

really don't feel this way. I was enthused about this program when I went into it, I was looking forward to it and it probably basically is, was, and will continue to be what I thought it would be. As has been mentioned just a moment ago, the first week or two is quite difficult, at least I felt it was. I'm pretty set in my ways, although I thought I could bend and learn and so forth, but you get into a habit of doing things one way or have a specific routine and all of a sudden, you have a shadow. Every time you turn around here is that shadow and it wasn't easy. But as the program continued through the seven weeks, I found that the feeling peaked out very rapidly after about two weeks and then the program really started paying off. The student seemed like the light bulb went on and all of a sudden began to show the pay off. I think this is where a lot of the work can be handled and a lot of the learning can be done, with the relationship between the pharmacist and the customer. I don't think I have to tell you people about this, but this is something these young people don't know a thing about. In each and every case, you are dealing with personalities, everybody is an individual, they are different. I've only had two and obviously they are different because they are a different sex, but they are just completely different individuals and I believe everyone that I have there will be. It is a very worthwhile program. Pat Lonnon was on the program last night and she spoke briefly about it. I know it is paying dividends. As was mentioned a moment ago, back in the stone ages as my kids would say, when I got out of school, I didn't know a thing about running a drug store and I grew up in one. But, you just have to get in there and get your nose wet and do it, it's the only way to learn it. I think the program is paying great dividends, I think it will continue to do so. I found the check list quite beneficial. It constitutes a composite of many different thoughts and while someone can dream up their own check list, I think they'll find just about everything in the one provided. I found one thing very early, and that is that the students are intelligent people, their academia background is not lacking and they come into the store and they really put you in the shade with their knowledge. Their problem is they just don't know what to do with it. I think the program is going to pay off tremendously by directing this knowledge.

Mr. Gary Gilstrap: I'm Gary Gilstrap and my store is in Galena, Kansas. I had a rather unusual situation in that my extern was not only older then I, but a personal friend and a brilliant person and it made for a rather interesting occasion, not only for me but for him. He had served a major portion of his internship with me in the summers and the vacations and this had given us both, a chance to evaluate the differences between the extern and intern program. The main difference that I noted right off the bat was the sense that you were not paying this individual and you do have more of an opportunity, or you don't mind it as much, put it that way, of having that individual following you around instead of doing a job, whatever the job may be. We sat down the first day and went over the check list and tried to decide what we thought he was deficient in and we concentrated on that. We found out that he felt his biggest deficiency at that time was in OTC merchandise and we do fit a few appliances, an area in which he had zero experience. We were fortunate to have the opportunity to have several people come in to have the appliances fit to them, and he was

able to observe this and I think this was beneficial. One thing that I think is very important that the students are doing and I think it really brings it home to them and forces them to watch you closer, is the student log book that they have. I really felt like forcing them each day to pick out one or two events and report them in retrospect. Another thing that we did, I'm sure that most everyone else did as well, was that we asked the student to justify what we do. That may sound like a silly thing, but we feel like this is a way that can work both ways. If you are forced to justify what you are doing, then it can be a lot of benefit to him and to you. This makes sure you are doing things, not only efficiently, but in a manner that you should. I got real tickled, getting back to this log book; I have a relief man that comes in one day a week and takes care of the prescriptions for me and he was quite apprehensive about the student writing in his little black book about him. But, I don't think anything was written to place him in a bad light. We only have a couple of physicians that are real handy, but we tried to make it a point to see that our student was exposed to them. From the very first day, we made it a point that when the doctor's phones rang, we would both be on the line. That way he was exposed, and as time went on, I was the one that was quiet, and he was the one taking the prescription, but still we were both on the line all the time. I think this helped him quite a bit. From the first day he was there we also turned the ordering over to him. I wish I had had a nickel for every time the pharmacist where I went to work said, there is the want book and you know what it is for, and left me on my own. I think this is something that you can not stress enough. This is one part that we don't want to overlook, it is an important part of any pharmacy.

Harley Russell: My name is Harley Russell and I am from Leavenworth, Kansas. It's hard to be at the very end of the line, the program has been covered so well. However, I'd like to ditto many of the remarks that have been made. As far as this program, I am sold on it. The extern I had was Ron Duncan. You may remember Ron from last night. Ron, I thought was a very bright and intelligent person and he had had experience before coming to me. He had over 1700 hours of experience, so it wasn't anything new to him and this presented a challenge to me. In the past when an intern started to do work for me, I usually had a conference day with them in order to try to explore and see exactly what experiences they had and to assess what their ambitions in the profession are as they start to work. Because I feel when a person comes to me as a student, they have some particular reason why they are there and they usually never do tell me unless I ask them. So, I did this with Ron and I found out that Ron had all the experience that I felt he had from reading about him on his student profile sheet. But, I felt something that he mentioned to you last night was important. He was very honest about this, but he felt he had all his experience, it showed up in talking to him. He wasn't cocky about it, but he just knew that he had had good experience. So my problem was to take him in and help put some finishing touches on the experience he had had and get him the experience in the right manner for what he hadn't really had. In my program, after I had this first conference with the extern, I produced a written program for the length of time that the student is going to be with me; three months during the summer or eight weeks for this program. It includes in this, the schedule week by week

of things we are trying to accomplish. I like to build the student up to a point where he is really learning to perform the duties of a pharmacist, as he would be if he or she were registered. I have a situation where I have more than one store so they learn how the administrative part works and they actually do it. This includes not only interstore ordering, but also communications with the office. I'm trying to develop a person as a pharmacist, as a full professional pharmacist with the accent always on pharmacy, so that they do learn what the associated tasks are. For example, OTC's have been brought up several times, and this is just the thing that I have always taken for granted to include in the training for the pharmacist. Something I feel has been important also with externs and with Ron is teaching them to work with other pharmacists who do work for me giving them an opportunity to learn from their experience. A few things that I try to accomplish which have not been brought up, is trying to develop the person in a professional stature and I do this in several ways. I don't know if they are right or wrong, but they have been accepted pretty well. I think that I do use something different, I use continuing education materials, as cassette cartridges from the hospital society and when a student comes to work for me, I give them a cassette player and once a month they receive new tapes. I tell the student that they have to go through these tapes and that the best time to go through them is when they are driving to and from work. There is something that I found, and that is that there is a distinct difference between the ones who listen to a tape coming to work in the morning and the ones who don't. Those who do listen to the tapes in the morning are usually willing to jump in, they are already absorbed in their work. That is just a little thing that I thought I would share with you. I've also purchased for my managers the Earl Nightingale series on leadership and self development. The extern, Ron in this case was very enthused over this and being that he was driving back and forth from Lawrence, he used this program as well on his own time. This is the real challange of the program taking each person and developing them, working with them and then coming out with something that we can be proud of in the program. Thank you.

Dean Mossberg: Thank you fentlemen, it is now time for a break before we return to review the mechanism of the program.

Review of Evaluation Forms and Mechanics of the Structured Externship Program.

At the final session of the cadre training program, the student guide lines and evaluation forms were reviewed. Changes were made as deemed appropriate by the entire body and incorporated into the section which follows. This section now constitutes the working manual for the School of Pharmacy's Structured Externship Program.

APPENDIX A

Program Guidelines

SCHOOL OF PHARMACY
The University of Kansas
Lawrence, Kansas 66044

Program Guidelines

General:

It is important that the participants in the structured externship program of the School of Pharmacy understand the rationale and objectives of the program as well as the mechanisms thereof.

The faculty of the School of Pharmacy, the state professional association and the Board of Pharmacy have agreed to undertake a program of training in those aspects of pharmacy that can be uniquely accomplished using the retail or institutional pharmacy as the teaching laboratory. The School of Pharmacy has appointed, as field instructors, pharmacy practitioners in the State of Kansas who are responsible for meeting the educational goals of the program. This program offers the student eight hours of academic credit and credit toward the practical training required for licensure by the State Board of Pharmacy.

The need for a change in practical training for pharmacy students has become self evident. We have agreed that a move toward a structured practical experience is a necessity in order to upgrade the training of pharmacists prior to licensure. The ultimate objective of the tripartite group (School, Association, Board) is to totally replace the traditional internship program with school-supervised programs that will allow the student, upon graduation, to take the State Board of Pharmacy Examination for Licensure and be fully licensed to practice pharmacy in the State of Kansas.

Relationship of Participants:

In traditional internship programs the relationship of intern to preceptor has often been one of employee to employer. When the student is working for pay, often after graduation, this sort of relationship is inevitable. In the Structured Externship Program the relationship is one of student to teacher. The field instructor is expected to take the time and make the effort necessary to teach and the student is expected to be an active student. This is not primarily a job but a course of instruction in the School of Pharmacy. The student is expected to do those things that are necessary to receive the full benefit from any course, e.g. outside reading, the maintenance of a "laboratory notebook" or diary and the seeking of information from whatever

source when you note the need. In short, we expect the student to participate in this program as a full time student.

Objectives of the Program:

Broad objectives may be stated which are relevant to this program:

1) To foster an awareness of the functions of the pharmacist in patient care, to develop a working knowledge of the roles and functions of other health care professionals and to offer the student insight into the problems of other health professionals.

2) To develop the background skills and self-reliance which are necessary to participate in the health care system.

3) To aid the student in the development of communication skills so that he can communicate effectively with the client and with other professionals.

4) To allow the student to work in a situation in which his special knowledge is used by the public and by other members of the health care team.

5) To allow the student to broaden his understanding of drug therapy and drug products and to place the student in a setting where he can gain exposure to the diagnosis and treatment of illness suitable to the pharmacy setting.

More specific or methodological objectives will not be listed in this section. The checklist of experiences may be consulted for a more detailed treatment.

Participation and Credit:

The student is given the opportunity to participate in this program during the fifth or final year in pharmacy school. The program is of eight weeks duration and is offered for eight hours of academic credit. At the present time a maximum of 320 hours may also be accrued toward the requirement for practical experience for licensure. The course is offered during both the first and last half of the spring semester. During the half of the semester that the student is not in the program, he will be taking courses at an accellerated rate in Lawrence. When the new curriculum of the school has been fully implemented (Fall 1975) the student will have available to him

both an eight week clinical externship program at the KU Medical Center and the eight week practice externship program. Both courses may then be taken during one semester, either summer, fall, or spring of the final year, allowing the student to accrue 640 hours of practical experience toward the licensure requirement.

Training Sites:

The field instructors are located in various parts of the state. The selection of an externship site will be accomplished by consultation between the coordinator of the program and the student and will not be final until agreed upon by both the coordinator of the program and the field instructor. Field Instructor profiles will be available from the externship coordinator and may be used in this process. In addition, students contemplating entering the program may wish to visit some of the training sites and meet the field instructors.

Remuneration and Working Requirements:

There will be no financial remuneration for the extern participating in the program.

The extern may not hold another pharmacy job in the community in which he is participating in the externship program. Likewise, the extern may not work for pay in the pharmacy in which he is taking the externship program during those times in the week when he is not participating in the program.

The extern is expected to spend a minimum of 40 hours per week in the externship program. During the first year of the program the maximum time allowable for practical experience credit will be 320 hours. The distribution of hours and the scheduling of hours are matters that must be worked out between the extern and the field instructor.

Grading and Evaluation:

The field instructor will report a grade of "credit" or "no credit" for the extern. In addition, an evaluation form will be utilized for indepth assessment of the extern's participation in the program. A copy of this evaluation form is appended to this document.

In addition, the student will evaluate the field instructor and the externship program upon completion of the eight-week session. A daily log will be maintained detailing the days' activities. The evaluation form, along with the checklist and the daily log will be turned in at the end of the program to

expedite the assessment of the program by the faculty of the School.

The coordinator of the externship program will visit each externship site at least once during the student's stay. The student and the field instructor will be consulted in private and areas of strength and weakness identified and discussed.

A pre- and post-test will be administered in an attempt to quantitate the value of the externship program. The results of these tests will be furnished to the field instructor so that he may, at the outset, better understand the state of the student's knowledge and may, at the conclusion of the program, have some quantitative indication of this effectiveness.

These tests will measure the student's knowledge of such areas as errors of omission and commission in the prescription, drug interactions, OTC products and the like. The tests will not be utilized in the assignment of a grade for the course but rather to aid in the identification of areas of strength and weakness and to aid in the evaluation of the program.

APPENDIX B

Instrument for Evaluation of Training Site

SCHOOL OF PHARMACY
The University of Kansas
Lawrence, Kansas 66044

EVALUATION OF TRAINING SITE

For each topic, circle the number at the right of the page which best describes your externship experience in relation to that topic.

4	3	2	1	0
Excellent Experience	Good Experience	Average Experience	Poor Experience	No Experience

Name of Field Instructor_____

Name of Pharmacy_____

Period of Instruction: From_____ to_____

Name of Reporting Student_____

Signature of Reporting Student_____

Date of Report_____

1.	Overall learning experience.	1.	4	3	2	1	0
2.	General acceptance by store personnel. (Consider cooperation, helpfulness, etc. in this question.)	2.	4	3	2	1	0
3.	General acceptance as an extern of the pharmacy by the clients.	3.	4	3	2	1	0
4.	Acceptance and relationship with field instructor.						
	a. Thoroughness of indoctrination as to policies, procedures, etc. of the pharmacy.	a.	4	3	2	1	0
	b. Given responsibilities relative to training and abilities.	b.	4	3	2	1	0
	c. Training included all phases of pharmacy management, i.e., areas of prescription practice, buying, selling, communications with health professionals, etc., in a balanced and proportional manner.	c.	4	3	2	1	0
	d. Continued communications with instructor relative to progress. (Consider if you feel you received constructive and sympathetic criticism.)	d.	4	3	2	1	0
	e. Were you permitted to present your ideas on specific problems, procedures, etc., and were they discussed?	e.	4	3	2	1	0
5.	The ethical standards of the pharmacy.	5.	4	3	2	1	0
6.	Professional and special services offered by the pharmacy.	6.	4	3	2	1	0
7.	Appearance, cleanliness and maintenance of the pharmacy.	7.	4	3	2	1	0
8.	The prescription department general learning experience.						
	a. Space, equipment, proper storage facilities.	a.	4	3	2	1	0

b. Library, references.	b.	4	3	2	1	0
c. Receipt of the prescription; preparation of the prescription; delivery to client.	c.	4	3	2	1	0
d. Pricing policies of prescriptions.	d.	4	3	2	1	0
e. Prescription problems--relations with clients, i.e. clients wishing to return prescriptions or professional appliances, complaints on prices, etc.	e.	4	3	2	1	0
f. Instruction given on professional appliances.	f.	4	3	2	1	0
g. Patient record systems.	g.	4	3	2	1	0
h. Training in receiving telephoned prescriptions and physicians orders.	h.	4	3	2	1	0
i. Training and learning experience concerning new products.	i.	4	3	2	1	0
9. Training and experience of prescription department.						
a. Meeting clients.	a.	4	3	2	1	0
b. Selling techniques and applications.	b.	4	3	2	1	0
c. Proper procedures for recording sales on cash register and completion of sales (packaging products, etc.).	c.	4	3	2	1	0
10. Instruction and training in buying products.						
a. Inventory--stock control, adequate stock, nature of stock, etc.	a.	4	3	2	1	0
b. Buying--sources of supply (direct purchases, wholesale purchases, etc.)	b.	4	3	2	1	0
c. Arrangement and storage of drugs.	c.	4	3	2	1	0
d. Purchase returns and allowances policy.	d.	4	3	2	1	0

11.	Accounting and record-keeping training.					
	a. Checking out cash registers and balancing receipts.	a.	4	3	2	1	0
	b. Payments of accounts; discounting of bills.	b.	4	3	2	1	0
	c. Payroll. Relative wage and hour laws, etc.	c.	4	3	2	1	0
	d. Finance statement analysis.	d.	4	3	2	1	0
	e. Correspondence--how to write business letters, i.e., special order of merchandise, requesting adjustment on merchandise, etc.	e.	4	3	2	1	0
12.	Personnel management and relations.	12.	4	3	2	1	0
13.	Medical practitioner contact and relations. (interprofessional relations). Services to health professionals, i.e. new products, consultations, drug information center, etc.	13.	4	3	2	1	0
14.	Institutional contact and relations (Nursing homes, extended care facilities, hospitals.)	14.	4	3	2	1	0
15.	Intra-professional relations. (Cooperation with other pharmacies.)	15.	4	3	2	1	0
16.	Training in State and Federal drug laws, records to be maintained, adherence to such laws.	16.	4	3	2	1	0
17.	Relations with sales representatives and medical representatives.	17.	4	3	2	1	0
18.	Activities outside the pharmacy. (Physician visits, service clubs, health organizations, community relations.)	18.	4	3	2	1	0
19.	Activities of field instructor in professional pharmaceutical organizations and relations with such organizations.	19.	4	3	2	1	0

20.	Professional publications and utilization of these publications.	20.	4	3	2	1	0
21.	Living accommodations were:	21.	4	3	2	1	0
22.	Evaluation of my progress in this learning experience was:	22.	4	3	2	1	0

GENERAL QUESTIONS

1. What was the most important experience (aspect of the pharmacy practice course?

2. What was the least important experience (aspect) of the pharmacy practice course?

3. List in order of importance several specific areas in which you were trained and any special techniques, ideas, etc., which were implemented to provide this training.

4. List specific deficiencies, i.e. areas you feel you were inadequately trained.

5. Briefly list and discuss generally and then in more specific terms how the externship program can be improved as a direct result of your experiences as a student in the course.

6. Do you feel that the program had any influence on the professional practice of the pharmacy in which you practiced?

7. General Comments:

APPENDIX C

Instrument for Evaluation of Student Performance in Community Practice

PHARMACY EXTERNSHIP PROGRAM

SCHOOL OF PHARMACY
The University of Kansas
Lawrence, Kansas 66044

EVALUATION OF STUDENT PERFORMANCE IN COMMUNITY PRACTICE

Name of Student: _____

Name of Pharmacy: _____

Period of Instruction: From _____ To _____

Name of Reporting Instructor _____

Signature of Reporting Instructor _____

Date of Report _____

Part I

Instructions: For each objective on the left, circle the number on the right which best describes the extern's mastery of that objective.

4	3	2	1
Excellent*	Good	Average	Poor

*For the purpose of this rating, please reserve the rating of excellent for those students whose performance rates among the best you have had the opportunity to observe. (No more than 5 to 10 students out of 100 should receive this rating.)

OBJECTIVE

A. The Prescription

1. Interprets written prescriptions, and asks for clarification when it is appropriate to do so.	1.	4	3	2	1
2. Receives telephone prescriptions and transcribes with accuracy.	2.	4	3	2	1
3. Has the ability to detect errors of omission and commission in prescriptions received.	3.	4	3	2	1

4.	Has the ability to convey information concerning prescription products when requested by the physician.	4.	4	3	2	1
5.	Can communicate information about Rx or O-T-C products in language understandable to the client.	5.	4	3	2	1
6.	Exercises professional judgment when confronted with a prescription which requires formulation or special labeling.	6.	4	3	2	1
7.	Is aware of drug interactions and has the ability to tactfully communicate the potential problem to the practitioner.	7.	4	3	2	1
B.	Medication Record Systems.					
1.	Understands the basic reasons for the medication record system.	1.	4	3	2	1
2.	Has reasonable mastery of the more common pathological states associated with various drug contraindications.	2.	4	3	2	1
3.	Uses the medication record system in a practical way on a daily basis.	3.	4	3	2	1
C.	Drug products for Self Medication					
1.	Has the ability to assist self-medicating patients.	1.	4	3	2	1
2.	Can recognize potentially serious health problems of clients needing medical treatment.	2.	4	3	2	1
3.	Has sufficient knowledge of health aids and sickroom supplies to be helpful to the client needing such supplies.	3.	4	3	2	1
D.	Health Services					
1.	Has the ability to convey to clients the full array of health services available in the community and beyond	1.	4	3	2	1

E. Controlled Drugs

1. Is familiar with those drugs controlled by BNDD.	1.	4	3	2	1
2. Knows how to order, store and inventory controlled drugs.	2.	4	3	2	1

F. Third-Party Payment Programs

1. Is familiar with all third-party programs available.	1.	4	3	2	1
2. Uses proper forms and procedures for third-party prepayment programs.	2.	4	3	2	1

Part II

	Excellent	Good	Average	Poor
1. Appearance and Grooming	____	____	____	____
2. Attitude toward clients	____	____	____	____
3. Personal interaction with clients	____	____	____	____
4. Cooperation with associates	____	____	____	____
5. Desire to follow instructions	____	____	____	____
6. Interest in learning	____	____	____	____
7. Well organized with respect to assigned tasks	____	____	____	____
8. Ability to cope with various situations	____	____	____	____
9. Ability to express thought	____	____	____	____
10. Poise	____	____	____	____
11. Punctuality	____	____	____	____
12. Initiative	____	____	____	____
13. Physical fitness	____	____	____	____
14. General attitude of Extern	____	____	____	____
15. Judgment	____	____	____	____
16. General estimate of student potential as a future pharmacist	____	____	____	____

Part III

1. What was your first estimate of the student?

2. Did this initial evaluation change significantly after his (her) externship time?

3. If they improved, in what manner was this improvement exhibited?

4. Was the student scholastically prepared to practice?

5. What academic weaknesses were you able to determine?

6. Enumerate and discuss any annoying mannerisms of your student.

7. How did he (she) accept your instructions?

8. If you had a vacancy on your staff six months from now, would you employ this student? If not, why?

9. How does this student compare with others you have instructed?

10. Enumerate methods by which the affiliation might be improved.

11. General Comments

12. The overall grade you would assign your student (Pass - Fail).

APPENDIX D

Instrument for Evaluation of Students Performance in Hospital Practice

PHARMACY EXTERNSHIP PROGRAM

SCHOOL OF PHARMACY
The University of Kansas
Lawrence, Kansas 66044

EVALUATION OF STUDENTS PERFORMANCE IN HOSPITAL PRACTICE

Name of Student: _____

Name of Pharmacy: _____

Period of Instruction: From: _____ To _____

Name of Reporting Instructor: _____

Signature of Reporting Instructor _____

Date of Report _____

Instructions: For each objective on the left, circle the number on the right which best describes the extern's mastery of that objective.

4	3	2	1
Excellent*	Good	Average	Poor

*For the purpose of this rating, please reserve the rating of excellent for those students whose performance rates among the best you have had the opportunity to observe. (No more than 5 to 10 students out of 100 should receive this rating.)

Part I

OBJECTIVE

A. The Prescription

1. Interprets written prescriptions, and asks for clarification when it is appropriate to do so.	1.	4	3	2	1
2. Receives telephone prescriptions and transcribes with accuracy.	2.	4	3	2	1
3. Has the ability to detect errors of omission and commission in prescriptions received.	3.	4	3	2	1

4.	Has the ability to convey information concerning prescription products when requested by the physician.	4.	4	3	2	1
5.	Can communicate information about Rx products in language understandable to the client.	5.	4	3	2	1
6.	Exercises professional judgment when confronted with a prescription which requires formulation or special labeling.	6.	4	3	2	1
7.	Is aware of drug interactions and has the ability to tactfully communicate the potential problem to the practitioner.	7.	4	3	2	1
B.	Medication Record Systems					
1.	Understands the basic reasons for the medication record system.	1.	4	3	2	1
2.	Has reasonable mastery of the more common pathological states associated with various drug contraindications.	2.	4	3	2	1
3.	Uses the medication record system in a practical way on a daily basis.	3.	4	3	2	1
C.	Institutional Procedures					
1.	Familiarity with institutional procedures for processing prescription orders.	1.	4	3	2	1
2.	Knowledge of drug products peculiar to the institution.	2.	4	3	2	1
3.	Has an awareness of the role of the various personnel in the institution.	3.	4	3	2	1
4.	Demonstrated the ability to use personnel management policies appropriately.	4.	4	3	2	1
5.	Can describe and use the accounting procedures which are used in the institution.	5.	4	3	2	1
6.	Can articulate the pharmacist rule in the institution.	6.	4	3	2	1

D. Health Service

1.	Has the ability to convey to clients the full array of health services available in the institution and beyond.	1.	4	3	2	1

E. Controlled Drugs

1.	Is familiar with those drugs controlled by BNDD.	1.	4	3	2	1
2.	Knows how to order, store and inventory controlled drugs.	2.	4	3	2	1

F. Third-Party Payment Programs

1.	Is familiar with all third-party programs available.	1.	4	3	2	1
2.	Uses proper forms and procedures for third-party prepayment programs.	2.	4	3	2	1

Part II	Excellent	Good	Average	Poor
1. Appearance and Grooming	___	___	___	___
2. Attitude toward clients	___	___	___	___
3. Personal interaction with clients	___	___	___	___
4. Cooperation with associates	___	___	___	___
5. Desire to follow instructions	___	___	___	___
6. Interest in learning	___	___	___	___
7. Well organized with respect to assigned tasks	___	___	___	___
8. Ability to cope with various situations	___	___	___	___
9. Ability to express thought	___	___	___	___
10. Poise	___	___	___	___
11. Punctuality	___	___	___	___
12. Initiative	___	___	___	___
13. Physical fitness	___	___	___	___
14. General attitude of Extern	___	___	___	___
15. Judgment	___	___	___	___
16. General estimate of student potential as a future pharmacist	___	___	___	___

Part III

1. What was your first estimate of the student?

2. Did this initial evaluation change significantly after his (her) externship time?

3. If they improved, in what manner was this improvement exhibited?

4. Was the student scholastically prepared to practice?

5. What academic weaknesses were you able to determine?

6. Enumerate and discuss any annoying mannerisms of your student.

7. How did he (she) accept your instructions?

8. If you had a vacancy on your staff six months from now, would you employ this student? If not, why?

9. How does this student compare with others you have instructed?

10. Enumerate methods by which the affiliation might be improved.

11. General Comments

12. The overall grade you would assign your student (Pass - Fail).

APPENDIX E

Checklist of Extern Experiences in Community Pharmacy

PHARMACY EXTERNSHIP PROGRAM

SCHOOL OF PHARMACY
The University of Kansas
Lawrence, Kansas 66044

Checklist of Extern Experiences in Community Pharmacy

	Discussion Only	Participation	Not Applicable
I. Compounding and Dispensing Prescriptions			
A. General Routine			
1. Receiving prescriptions and information obtained	___	___	___
Telephone	___	___	___
Personal	___	___	___
2. Filling prescription order	___	___	___
3. Labeling	___	___	___
4. Methods of checking	___	___	___
5. Notations on prescription order	___	___	___
6. Contacting physician	___	___	___
7. Dispensing prescription	___	___	___
a. personally to patient	___	___	___
b. via delivery	___	___	___
8. Answering patient's questions	___	___	___
B. Prescriptions Requiring Compounding	___	___	___
C. Prescriptions for Controlled Drugs	___	___	___
D. Refilling prescriptions	___	___	___
1. Refills for chronic conditions	___	___	___
2. Refills for acute conditions	___	___	___
3. "P.R.N." refills	___	___	___

	Discussion Only	Participation	Not Applicable
4. "Emergency" refill requests	___	___	___
5. Controlled drugs	___	___	___
E. Prescription orders for non-legend drugs	___	___	___
F. Copies	___	___	___
G. Return of prescription medication	___	___	___
H. Pricing prescriptions (mark-up or fee)	___	___	___
II. Inventory Control			
A. Methods of ordering	___	___	___
1. Wholesaler	___	___	___
2. Direct	___	___	___
B. Receiving and Checking	___	___	___
1. Drop shipment	___	___	___
C. Methods of Payment	___	___	___
1. Company discounts	___	___	___
D. Pricing			
1. Policy of companies	___	___	___
2. Policy of pharmacy	___	___	___
E. Arrangement of legend drugs in pharmacy	___	___	___
1. Routine stock	___	___	___
2. Special storage areas	___	___	___
F. Turnover	___	___	___
G. Return merchandise	___	___	___

	Discussion Only	Participation	Not Applicable
H. Backorders	___	___	___
I. Biological, Dated and refrigerated products	___	___	___
III. Management and Personnel Relations			
A. General management policies	___	___	___
B. Handling of personnel	___	___	___
1. Hiring	___	___	___
2. Dismissal	___	___	___
3. Motivation	___	___	___
4. Discipline and reprimands	___	___	___
5. Salaries	___	___	___
6. Fringe benefits	___	___	___
7. Purchases by employees	___	___	___
C. Opening and Closing Pharmacy	___	___	___
D. General Maintenance	___	___	___
E. Theft and Fire Control	___	___	___
F. Insurance	___	___	___
G. General Layout and traffic patterns	___	___	___
H. Displaying merchandise	___	___	___
I. Cash records and bank deposit	___	___	___
J. Bookkeeping	___	___	___
K. Charging and billing prescriptions	___	___	___
L. Sales tax report	___	___	___
M. Adjustment of complaints	___	___	___
N. Correspondence	___	___	___

	Discussion Only	Participation	Not Applicable
IV. Drug Information and Control			
A. Patient or family record system	___	___	___
1. Design	___	___	___
2. Utilization	___	___	___
3. Mechanics	___	___	___
4. Drug histories	___	___	___
B. Handling of drug allergies, idiosyncracies and interactions	___	___	___
C. Pharmacy as Health Information Center (heart, cancer, diabetes, mental, etc.)	___	___	___
D. Drug Information to other health professionals	___	___	___
1. New product information	___	___	___
2. Evaluation of old and new products	___	___	___
3. Preparation of special formulations	___	___	___
V. Controlled Drugs and Poisons			
A. Preparation of BNDD order forms	___	___	___
B. Review of controlled drugs	___	___	___
C. Storage of controlled drugs	___	___	___
D. Inventory of controlled drugs	___	___	___
E. Dispensing controlled drugs	___	___	___
F. Filing prescriptions and records	___	___	___
G. Policy on handling suspected narcotic addicts	___	___	___
H. Patients enrolled in narcotic treatment programs	___	___	___
I. Poison sales and records	___	___	___

	Discussion Only	Participation	Not Applicable
VI. Third Party Payments	___	___	___
A. Types of programs available	___	___	___
B. Handling of forms	___	___	___
C. Methods of compensation	___	___	___
VII. Instruction in Specific Departments			
A. Non-prescription drugs	___	___	___
1. Arrangement of drugs in pharmacy	___	___	___
2. Supplying information and advice	___	___	___
a. on patient request only	___	___	___
b. on pharmacist's initiative	___	___	___
3. Discouragement of purchasing contraindicated items	___	___	___
B. Hospital and surgical supplies	___	___	___
C. Baby and infant supplies	___	___	___
D. Diabetic and Dietary	___	___	___
E. Veterinary	___	___	___
F. Hypo. Cosmetics	___	___	___
VIII. Interviews and visitations			
A. Physician	___	___	___
B. Dentist	___	___	___
C. Other Health Professionals	___	___	___
D. Nursing Home	___	___	___
E. Medical service representatives	___	___	___
F. Local, State or National meetings	___	___	___
G. Continuing Education Programs	___	___	___

	Discussion Only	Participation	Not Applicable
IX. Services to Nursing Home or E.C.F.	____	____	____
X. Special Project	____	____	____

APPENDIX F

Checklist of Extern Experiences
in Hospital Pharmacy

SCHOOL OF PHARMACY
The University of Kansas
Lawrence, Kansas 66044

Checklist of Extern Experiences in Hospital Pharmacy

	Discussion Only	Participation	Not Applicable
I. Drug Distribution			
A. Inpatient Drug Distribution (Drug Use Control)			
1. Type of Medication Order Received	____	____	____
a. Original or direct carbon-type copy	____	____	____
b. Transcription by nursing personnel	____	____	____
c. Bulk requisition	____	____	____
2. Transmitting medication orders to pharmacy (e.g. couriers, pneumatic tube, telephone)	____	____	____
3. Drug Distribution System	____	____	____
a. Complete floor stock (charge vs non-charge floor stock drugs)	____	____	____
b. Individual patient prescriptions	____	____	____
c. Unit dose system	____	____	____
d. Combination system	____	____	____
4. Dispensing Procedures	____	____	____
a. Regular and emergency order procedures	____	____	____
b. New orders and refills	____	____	____
c. Interpretation of orders and product selection	____	____	____

	Discussion Only	Participation	Not Applicable
d. Differences in control by category of drug	___	___	___
(1) Legend drugs	___	___	___
(2) Controlled drugs (BNDD Drugs)	___	___	___
(3) O-T-C drugs	___	___	___
e. Labeling (regular and auxiliary)	___	___	___
f. Pertinent record keeping and filing of prescriptions	___	___	___
g. Charging-Crediting	___	___	___
h. Checking	___	___	___
5. Inspection of Medication on Nursing Units	___	___	___
a. Regular stock	___	___	___
b. Emergency stock and kits	___	___	___
c. Controlled drugs-security	___	___	___
d. Frequency and Methods of recording the inspection	___	___	___
6. Automatic Stop Orders (organization, enforcement, drugs covered)	___	___	___
7. After Hours Dispensing Control	___	___	___
a. Emergency kits	___	___	___
b. On-call pharmacist	___	___	___
c. Drug cabinets - limited access	___	___	___
8. Sample Drug Control Methods	___	___	___

	Discussion Only	Participation	Not Applicable
B. Outpatient Dispensing			
1. Availability of Services (e.g. employees, general public)	___	___	___
2. Prescription Receiving Procedures and Limitations (i.e. written, telephoned, house staff prescriptions only)	___	___	___
3. Prescription Order Filling Procedures	___	___	___
a. New orders and refills	___	___	___
b. Interpretations	___	___	___
c. Product selection	___	___	___
d. Proper labeling	___	___	___
e. Special handling for controlled drugs	___	___	___
f. Checking	___	___	___
g. Fee determination	___	___	___
h. Dispensing and counseling procedures	___	___	___
C. Procurement and Inventory Control			
1. Formulary vs. Non-Formulary Drugs	___	___	___
2. Procedures on:			
a. Product specifications	___	___	___
b. Contracts and bidding	___	___	___
c. Pricing and discounts	___	___	___
3. Source of Supply	___	___	___
a. Direct order	___	___	___
b. Wholesaler	___	___	___
c. Other practitioners	___	___	___

	Discussion Only	Participation	Not Applicable
4. Ordering Procedures	___	___	___
5. Receiving, Checking, Pricing	___	___	___
6. Merchandise Return Policies and Procedures	___	___	___
7. Dated Product Procedures	___	___	___
8. Recall Procedures	___	___	___
9. Inventory Location and Storage	___	___	___
a. Systems of arrangement	___	___	___
b. Location of OTC products	___	___	___
c. Special storage areas	___	___	___
D. Laws, Regulations and Procedures for Special Classes of Drugs			
1. Controlled drugs (Review of regulations)	___	___	___
a. Ordering procedures	___	___	___
b. Storage and inventory requirements (nursing and pharmacy)	___	___	___
c. Nursing audit records	___	___	___
d. Disposition records (nursing and pharmacy)	___	___	___
2. Investigational Drugs (Review of Regulations)	___	___	___
a. Control methods	___	___	___
b. Records required	___	___	___
c. Responsibility of pharmacy and principal investigator	___	___	___
d. Patient consent forms	___	___	___
e. Reordering	___	___	___

	Discussion Only	Participation	Not Applicable
5. Alcohol (review of regulations)	___	___	___
a. Application for alcohol	___	___	___
b. Storage and control	___	___	___
c. Records and reports	___	___	___
E. Manufacturing Activities	___	___	___
1. General Manufacturing	___	___	___
a. Equipment	___	___	___
b. Personnel	___	___	___
c. Costs	___	___	___
d. Quality control procedures	___	___	___
2. Parenterals & Sterile Products	___	___	___
a. I.V. Admixtures	___	___	___
(1) Equipment	___	___	___
(2) Procedures	___	___	___
(3) Personnel required	___	___	___
b. Allergenic extracts	___	___	___
c. Radiopharmacy	___	___	___
3. Prepackaging	___	___	___
a. Solids (equipment, labeling, records, personnel)	___	___	___
b. Liquids (equipment, labeling, records, personnel)	___	___	___
II. Related Professional Activities			
A. Pharmacy and Therapeutics Committee			
1. Rationale, organization, functions	___	___	___

	Discussion Only	Participation	Not Applicable
2. Role of the pharmacist	___	___	___
3. Frequency of meetings	___	___	___
B. Hospital Formulary System	___	___	___
1. Rationale and Operation	___	___	___
2. Addition and Deletion Procedures	___	___	___
C. Hospital Formulary	___	___	___
1. Type used	___	___	___
2. Function	___	___	___
3. Distribution and Use	___	___	___
D. Drug Information			
1. Methods of Communication used (e.g. Bulletins, response to specific questions)	___	___	___
2. Literature Resources	___	___	___
3. Utilization of References by Pharmacy Personnel and Students	___	___	___
E. Poison Control Information			
1. References and Location	___	___	___
2. Procedures for Answering Questions	___	___	___
F. Interdepartmental Relations			
1. Nursing Pharmacy Committee or other types of Liaison	___	___	___
2. Other Liaison Committees	___	___	___
G. Professional Education and Activities	___	___	___
1. Continuing Education Activities	___	___	___
2. Hospital Policy and Pharmacy Policy	___	___	___

	Discussion Only	Participation	Not Applicable
3. Professional Organization Activities	___	___	___
4. Interprofessional Educational Activities (e.g. MD, RN, LPN, etc)	___	___	___
III. Related Administrative Activities			
A. Hospital Organizational Structure	___	___	___
B. Pharmacy Organizational Structure	___	___	___
C. Departmental and Hospital Administration Relations and Communications	___	___	___
1. Formal Reports to Administration monthly, annual, etc.	___	___	___
2. Informal and Personal Communications and Politics	___	___	___
D. General Policies and Procedures Manuals	___	___	___
1. Rationale	___	___	___
2. Function and Use	___	___	___
E. Personnel of the Department	___	___	___
1. Number	___	___	___
2. Type - (job descriptions, roles)	___	___	___
F. Personnel Relations and Responsibility of the Director	___	___	___
1. Selection	___	___	___
2. Evaluation	___	___	___
3. Motivation and Advancement	___	___	___
4. Discipline and Dismissal	___	___	___

	Discussion Only	Participation	Not Applicable
G. Business Operations	___	___	___
1. Bookkeeping	___	___	___
2. Records for Administrative Use	___	___	___
3. Budget Preparation	___	___	___
4. Fee Determination - Income Determination	___	___	___
5. Workload Measurement or Productivity Records	___	___	___
H. Planning and Goals for the Pharmacy	___	___	___
1. Short Term and Long Term	___	___	___
2. Facilities and Equipment	___	___	___
3. Professional Service Expansion and Improvement	___	___	___
IV. Clinical Activities			
A. Interaction with Other Health Care Professionals in Patient Care Areas	___	___	___
B. Nursing Medication Rounds and Nursing Conferences	___	___	___
C. Attendance at Medical Rounds and Conferences	___	___	___
D. Follow the Progress of Selected Patients Regarding:			
1. The disease process	___	___	___
2. Drug therapy and rationale	___	___	___
3. Results of therapy and drug-related problems of the patient	___	___	___
4. Development of patient medication records and profiles	___	___	___

	Discussion Only	Participation	Not Applicable
5. Development of case presentations from case studies	___	___	___
6. Provision of person-to-person drug information in the clinical setting. (to patients, nurses, physicians)	___	___	___
7. Detection of pharmacist and pharmacy-related situations and resolving them	___	___	___

V. Special Projects

APPENDIX G

Student Profile Form

SCHOOL OF PHARMACY
The University of Kansas
Lawrence, Kansas 66044

Student Profile

1. Name: _____

   Address: _____

   City: _____ State: _____ Zip: _____

2. Date of Birth: _____ Place of Birth: _____

3. a. Male_____ b. Single _____

   Female___ Married_____ Children_____(No.)

4. Military Service Yes_____ Branch_____

   (Peace Corps, etc.) No _____ Dates_____

   Did you receive any pharmaceutical related training: ___Yes ___No

   Explain_____

5. Are any of your relatives pharmacists? _____Yes _____No

   If yes, please identify.

6. Academic Experience (Chronological order commencing with high school)

Name of Institution	Dates Attended	Degree

7. Employment since entering college.

Place	Dates	Position

8. Summary of Professional Experience: (Months)

	Full-time (Months)	Part-time (Months)
Community Pharmacy		
Hospital Pharmacy		
Other (Explain)		

9. How would you judge your experience at this point in the following areas:

	None	Minimal	Moderate	Extensive
Dispensing				
Compounding				
O-T-C Drugs				
Patient Contact				
Physician Contact (phone) (personal)				
Patient Record Systems				
Ordering and Receiving				
Convalescent Aids				
Drug Information				
Manufacturing				
Narcotic and Mfg. Control				
Intravenous Solutions				

10. Organizations (student, professional or social), Officer or Committees.

_____

_____

_____

11. At the present time what do you anticipate doing once you have graduated?

a. Employment

_____Community Pharmacy - Independent

_____Community Pharmacy - Chain

_____Hospital Pharmacy

_____Pharmaceutical Sales

_____Pharmaceutical Industry

_____Government - Civilian

b. School

_____Graduate School (Indicate area_____)

_____Medicine _____Dentistry

_____Law _____Other (Explain)

12. What hobbies or interests do you have?

_____

_____

_____

APPENDIX H

Field Instructor Profile Form

(Community Practice)

SCHOOL OF PHARMACY
The University of Kansas
Lawrence, Kansas 66044

FIELD INSTRUCTOR PROFILE
(Community Practice)

1. Name of Field Instructor: _____

2. Pharmacy Name:

   Pharmacy Address:

   Pharmacy Phone Number:

3. Type of Pharmacy:

   _____Neighborhood pharmacy

   _____Shopping center pharmacy

   _____Prescription specialty pharmacy

   _____Clinic pharmacy

4. Number of pharmacists employed in pharmacy:

   _____Full time

   _____Part time

5. Community population:

   _____Less than 5,000

   _____5,000 - 15,000

   _____15,000 - 30,000

   _____over 30,000

6. Patients served:

   _____Mixed

   _____Largely urban

   _____Largely rural

   _____Inner city

   _____Largely elderly

   _____Other (specify)

7. Types of pharmacy services:

a. _____ Patient or family medication record system

b. _____ Counseling patients on proper use of their prescription medication

c. _____ Counseling patients on OTC medications

d. _____ Convalescent aids and surgical supplies

e. _____ Nursing home services:

_____ Fill prescriptions for nursing home patients

_____ Consultant services (regular pharmacist visits to inspect nursing stations and confer with professional staff)

_____ In-service training program for nursing home staff

8. If you have a medication record system, do you use it for:

a. _____ All patients

_____ Selected patients

On what basis is selection made? _____

b. _____ Who maintains record system? _____

c. How do you use it:

_____ To aid in locating prescription refill numbers

_____ To aid in providing a record of patient medication expenses

_____ To screen for medication problems at time of new prescription filling

_____ Drug allergies

_____ Drug interactions with prescription medications

_____ Drug interactions with OTC medications

_____ Other (specify)

APPENDIX I

Field Instructor Profile Form

(Institutional Practice)

SCHOOL OF PHARMACY
The University of Kansas
Lawrence, Kansas 66044

FIELD INSTRUCTOR PROFILE
(Institutional Practice)

1. Field Instructor:_____

2. Hospital Name:

   Hospital Address:

   Hospital Pharmacy Phone Number:

3. Size of Hospital:

4. Type of Hospital:

   _____General Hospital

   _____Speciality Hospital, please specify_____

   _____Proprietary

   _____Non-Profit

   _____Government

   _____Non-Government

5. Does the hospital already participate in the teach ng of other health professional?

   Please indicate areas of instruction.

6. Number of pharmacists employed:_____

7. Does the hospital have an outpatient clinic?

8. Types of pharmacy services:

   _____Inpatient dispensing

   _____Outpatient dispensing

   Type of drug distribution system:

   _____Individual prescriptions

8. (cont.)

_____Floor stock

_____Unit dose

_____Original copy of physician's order

_____Patient medication profile

_____Satellite pharmacy stations

_____I.V. additive service

_____Central supply

_____Radiopharmaceuticals

_____Manufacturing

_____Sterile products

_____Drug information

_____Clinical Services

_____Investigational Drugs

_____Computer application

_____Other (specify)

9. Hours of operation

10. Responsibilities of pharmacy for inservice training:

_____Hospital staff (physicians, RN, LPN, etc.)

_____Students of other professions

Please indicate nature of above instruction.

11. Types of continuing education programs for pharmacy staff.

12. To what extent is the pharmacy involved with patient instruction?

_____Outpatient

_____While an inpatient

_____At time of discharge from hospital

13. Future planned programs or services.

APPENDIX J

Summary Report of Evaluation of Field Instructors and Externship Experience

B. W. Thornton, M.A.

This report is a summary of the data collected from twenty-five students in the School of Pharmacy at the University of Kansas. Five students were in hospital pharmacies and twenty were in community practice. These students were involved in a structured externship program which was designed to promote a student-to-teacher relationship between the pharmacy extern (the student) and the participating preceptor (field instructors). The program is directed by the School of Pharmacy in an effort to provide students with a more meaningful learning experience. Students in the program spent eight weeks as externs during their final year in the pharmacy school and received eight hours of academic credit. It is the purpose of this report to provide feedback to the project director relating to the students' evaluation of the field instructors and their learning experiences.

The instrument used to collect the students' opinions consisted of 43 items which were scored zero to four. The values one through four indicated the quality of the externship experience, with one being poor and four being excellent. Students were allowed to indicate no experience by marking the item zero. Many of the items cannot logically receive a mark of zero from students who spent eight weeks as pharmacy externs. However, many such items received marks of zero. It is suggested that in such cases marks of zero be considered as indicating a very poor experience. A copy of the instrument used to evaluate the field instructors and the learning experience is presented in Appendix B.

The results of the questionnaire were summarized using computer programs available at the University Computation Center. Histograms for each item were constructed and are presented in this report. Non-missing data correlations were computed for each pair of variables. Non-missing data means the student indicated some type of experience when he responded to the item. For each pair of variables, the computer program used the non-missing data to compute the correlations which are presented in this report. The reader is reminded that the range of correlations is -1.0 to 1.0, with the value of zero indicating no linear relationship between the two variables.

The correlation matrix can be used to determine if relationships exist between variables of interest. For the purposes of illustration, let X be a variable of particular interest. By considering the correlation of X and the other variables, variables can be identified which relate in a positive or a negative manner to X. As an example, consider variable one, the student's overall learning experience. The correlations of variable one with the other variables (column one) are all positive except for the correlation with variable 19, the professional activities of the preceptor (variable 40 on the computer printout). Thus, the data indicates that the students do <u>not</u> feel a positive relationship

exists between the general learning experience and the professional activities of the preceptor. All other variables tend to be positively related to the student's perception of his general learning experience.

The reader is encouraged to individually consider histograms and correlation coefficients corresponding to the questions of special interest to him. A table which gives the correspondence between the variable numbers on the computer printout for the correlations and the variable numbers on the instrument is provided in the first section of Appendix C. The remainder of this report is a brief summary of the general results.

The students indicated a generally good learning experience resulting from the externship program (questions 1, 2, and 3). The students judged the general acceptance and relationship with their field instructors to be good to excellent. All variables which assessed the general characteristics of the preceptor and the program are negatively skewed. This indicates most of the students judged the experiences being considered by these items as good to excellent, and a few students judged the characteristics as being average or below.

The scores from the items measuring the relationship with the field instructor (section 4) showed that the students viewed the experience as favorable. The mean scores from these five questions were all greater than or equal to three. As is to be expected, there was a small number of individuals who gave the experience low ratings in this area, but the majority of the students viewed the experience as being good to excellent.

The responses to the questions in section eight (General Experience in the Area of Prescriptions) were acceptable. The students felt that the instruction they received on professional appliances was generally weak (8 f). The items which assessed training and experience outside the pharmacy (section 9) received mixed responses. These items are slightly negatively skewed, but twelve to sixteen percent of the students indicated no experience on the items. It is likely that the scores are partly a function of the type of pharmacy involved. The reader should keep in mind that five (20%) of the students worked in hospital pharmacies.

The students indicated the training they received during the externship in accounting and record keeping was generally weak. These are the questions in section eleven. A large number of students indicated that the experience in these areas was below average or non-existent. This should be considered by the School of Pharmacy as a possible area of general weakness in the externship program. The data indicates that a large percentage of the pharmacy students received less than favorable practical experience in the area of accounting during their externship.

Summary

This report is a summary of the data collected relating to the student opinion of the externship program and the field instructors. A review of the histograms indicates the success with which the students viewed the program. The general opinion of the students is summarized in question one which tends to correlate positively with most of the other items on the instrument. The results of this report should be used as a guide to general weaknesses and strengths in the externship program. The reader should keep in mind that the data was collected from a relatively small number of students (25).

Suggestions

The evaluation and the project might be improved if the specific objectives of the program were identified in terms of the behaviors which a student was expected to experience during the externship. Such a list of objectives should be provided to the students as well as the preceptor. In this manner, both the student and the instructor (preceptor) would be informed of the experiences which the School of Pharmacy views as desirable.

The instrument used in this evaluation could be improved in a few ways. Items for which there cannot logically be a response of no experience should be separated from the remainder of the items. The students should not be given the option of responding no experience under these conditions. The values of the alternatives should be placed at the top of each new page on the questionnaire. In this manner, the students are less likely to reverse score items during the exam. Some of the questions could be stated more directly. For example, item 8b states "Library, references." Such a question could mean a variety of things - Was there a library and reference materials in the pharmacy? Were library and reference materials used by myself and the pharmacist? Was I (the extern) encouraged to use the library materials by my preceptor? If the questions are stated in a more direct manner, the results are more meaningful when structuring of adjustments in the program. Many of the questions covered several content areas. On this type of question it is impossible to determine to which part or parts the student responded.

Histograms for Each Item

```
   HISTOGRAMS FOR EVALUATION  COUNT  PRCNT   CUM.
1        0         10        20          PLTED  PRCNT
         +.........+.........+
      0  3S*                  .     1    4.0    4.0
      1  2S                   .     0    0.     4.0
      2  1S**                 .     2    8.0   12.0
      3  M*********           .     9   36.0   48.0
      4  1S*************      .    13   52.0  100.0
         +.........+.........+
```

```
   HISTOGRAMS FOR EVALUATIO   COUNT  PRCNT   CUM.
2        0         10        20          PLTED  PRCNT
         +.........+.........+
      0  4S*                  .     1    4.0    4.0
      1  3S                   .     0    0.     4.0
      2  1S                   .     0    0.     4.0
      3  M*****               .     5   20.0   24.0
      4  1S*******************.    19   76.0  100.0
```

```
   HISTOGRAMS FOR EVALUATIO   COUNT  PRCNT   CUM.
3        0         10        20          PLTED  PRCNT
         +.........+.........+
      0  3S*                  .     1    4.0    4.0
      1  2S                   .     0    0.     4.0
      2  M******              .     6   24.0   28.0
      3  1S**********         .    11   44.0   72.0
      4  2S*******            .     7   28.0  100.0
         +.........+.........+
```

```
   HISTOGRAMS FOR EVALUATIO   COUNT  PRCNT   CUM.
4A       0         10        20          PLTED  PRCNT
         +.........+.........+
      1  2S**                 .     2    8.0    8.0
      2  1S*****              .     5   20.0   28.0
      3  1M*********          .     9   36.0   64.0
      4  2S*********          .     9   36.0  100.0
         +.........+.........+
```

```
   HISTOGRAMS FOR EVALUATIO   COUNT  PRCNT   CUM.
4B       0         10        20          PLTED  PRCNT
         +.........+.........+
      0  3S*                  .     1    4.0    4.0
      1  2S                   .     0    0.     4.0
      2  1S**                 .     2    8.0   12.0
      3  M**********          .    10   40.0   52.0
      4  1S***********        .    12   48.0  100.0
         +.........+.........+
```

```
   HISTOGRAMS  FOR EVALUATIO   COUNT  PRCNT   CUM.
4C      0         10         20          PLTED  PRCNT
        +.........+.........+
     0 3S*                   .      1    4.0    4.0
     1 2S                    .      0    0.     4.0
     2 1S******              .      6   24.0   28.0
     3 1M*********           .      9   36.0   64.0
     4 2S*********           .      9   36.0  100.0
        +.........+.........+
```

```
   HISTOGRAMS  FOR EVALUATIO   COUNT  PRCNT   CUM.
4D      0         10         20          PLTED  PRCNT
        +.........+.........+
     0 3S*                   .      1    4.0    4.0
     1 2S                    .      0    0.     4.0
     2 1S***                 .      3   12.0   16.0
     3  M**********         .     10   40.0   56.0
     4 1S***********         .     11   44.0  100.0
        +.........+.........+
```

```
   HISTOGRAMS  FOR EVALUATIO   COUNT  PRCNT   CUM.
4E      0         10         20          PLTED  PRCNT
        +.........+.........+
     0 3S*                   .      1    4.0    4.0
     1 2S*                   .      1    4.0    8.0
     2 1S*                   .      1    4.0   12.0
     3  M********            .      8   32.0   44.0
     4 1S**************      .     14   56.0  100.0
        +.........+.........+
```

```
   HISTOGRAMS  FOR EVALUATIO   COUNT  PRCNT   CUM.
5       0         10         20          PLTED  PRCNT
        +.........+.........+
     0 3S*                   .      1    4.0    4.0
     1 2S                    .      0    0.     4.0
     2 1S**                  .      2    8.0   12.0
     3  M***********         .     11   44.0   56.0
     4 1S***********         .     11   44.0  100.0
        +.........+.........+
```

```
   HISTOGRAMS  FOR EVALUATIO   COUNT  PRCNT   CUM.
5       0         10         20          PLTED  PRCNT
        +.........+.........+
     1 2S*                   .      1    4.0    4.0
     2 1S*****               .      5   20.0   24.0
     3 1M***********         .     11   44.0   68.0
     4 2S*********           .
```

```
   HISTOGRAMS  FOR EVALUATIO  COUNT  PRCNT   CUM.
7        0         10        20          PLTED  PRCNT
         +.........+.........+
      1 2S**                 .      2    8.0    8.0
      2 1S***                .      3   12.0   20.0
      3 1M*************      .     13   52.0   72.0
      4 2S*******            .      7   28.0  100.0
         +.........+.........+

   HISTOGRAMS  FOR EVALUATIO  COUNT  PRCNT   CUM.
8A       0         10        20          PLTED  PRCNT
         +.........+.........+
      0 2S*                  .      1    4.0    4.0
      1 1S                   .      0    0.     4.0
      2  M**********        .     11   44.0   48.0
      3 1S********           .      8   32.0   80.0
      4 2S*****              .      5   20.0  100.0
         +.........+.........+

   HISTOGRAMS  FOR EVALUATIO  COUNT  PRCNT   CUM.
8B       0         10        20          PLTED  PRCNT
         +.........+.........+
      1 2S***                .      3   12.0   12.0
      2  M****               .      4   16.0   28.0
      3 1S**************     .     14   56.0   84.0
      4 2S****               .      4   16.0  100.0
         +.........+.........+

   HISTOGRAMS  FOR EVALUATIO  COUNT  PRCNT   CUM.
8C       0         10        20          PLTED  PRCNT
         +.........+.........+
      0 2S*                  .      1    4.0    4.0
      1 1S*                  .      1    4.0    8.0
      2  .****               .      5   20.0   28.0
      3  M*******            .      7   28.0   56.0
      4 1S**********         .     11   44.0  100.0
         +.........+.........+

   HISTOGRAMS  FOR EVALUATIO  COUNT  PRCNT   CUM.
8D       0         10        20          PLTED  PRCNT
         +.........+.........+
      0 2S**                 .      2    8.0    8.0
      1 1S**                 .      2    8.0   16.0
      2  M***                .      3   12.0   28.0
      3  .******             .      6   24.0   52.0
      4 1S***********        .     12   48.0  100.0
         +.........+.........+
```

```
   HISTOGRAMS  FOR EVALUATIO   COUNT  PRCNT   CUM.
BE      0         10         20          PLTED  PRCNT
        +.........+.........+
     0 2S***                 .      3   12.0   12.0
     1 1S                    .      0    0.    12.0
     2  M*******             .      7   28.0   40.0
     3 1S**********          .     10   40.0   80.0
     4 2S*****               .      5   20.0  100.0
        +.........+.........+
```

```
   HISTOGRAMS  FOR EVALUATIO   COUNT  PRCNT   CUM.
BF      0         10         20          PLTED  PRCNT
        +.........+.........+
     0  .***                 .      3   12.0   12.0
     1 1S**                  .      2    8.0   20.0
     2  M*********           .      9   36.0   56.0
     3 1S********            .      8   32.0   88.0
     4 2S***                 .      3   12.0  100.0
        +.........+.........+
```

```
   HISTOGRAMS  FOR EVALUATIO   COUNT  PRCNT   CUM.
BG      0         10         20          PLTED  PRCNT
        +.........+.........+
     0 2S*                   .      1    4.0    4.0
     1 1S**                  .      2    8.0   12.0
     2  M********            .      8   32.0   44.0
     3 1S****                .      4   16.0   60.0
     4  .**********          .     10   40.0  100.0
        +.........+.........+
```

```
   HISTOGRAMS  FOR EVALUATIO   COUNT  PRCNT   CUM.
BH      0         10         20          PLTED  PRCNT
        +.........+.........+
     1 2S*                   .      1    4.0    4.0
     2 1M*******             .      7   28.0   32.0
     3 1S**********          .     10   40.0   72.0
     4 2S*******             .      7   28.0  100.0
        +.........+.........+
```

```
   HISTOGRAMS  FOR EVALUATIO   COUNT  PRCNT   CUM.
BI      0         10         20          PLTED  PRCNT
        +.........+.........+
     0 2S*                   .      1    4.0    4.0
     1 1S**                  .      2    8.0   12.0
     2  M*********           .      9   36.0   48.0
     3 1S********            .      8   32.0   80.0
     4 2S*****               .      5   20.0  100.0
        +.........+.........+
```

```
   HISTOGRAMS  FOR EVALUATIO  COUNT  PRCNT   CUM.
9A      0         10         20        PLTED   PRCNT
        +.........+.........+
     0  .***                .      3   12.0    12.0
     1 1S**                 .      2    8.0    20.0
     2  M*****              .      5   20.0    40.0
     3 1S*********          .      9   36.0    76.0
     4  .******             .      6   24.0   100.0
        +.........+.........+
```

```
   HISTOGRAMS  FOR EVALUATIO  COUNT  PRCNT   CUM.
9B      0         10         20        PLTED   PRCNT
        +.........+.........+
     0  .***                .      3   12.0    12.0
     1 1S***                .      3   12.0    24.0
     2  M****               .      4   16.0    40.0
     3 1S********           .      8   32.0    72.0
     4  .*******            .      7   28.0   100.0
        +.........+.........+
```

```
   HISTOGRAMS  FOR EVALUATIO  COUNT  PRCNT   CUM.
9C      0         10         20        PLTED   PRCNT
        +.........+.........+
     0  .****               .      4   16.0    16.0
     1 1S                   .      0    0.     16.0
     2  M****               .      4   16.0    32.0
     3  .*****              .      5   20.0    52.0
     4 1S************       .     12   48.0   100.0
        +.........+.........+
```

```
   HISTOGRAMS  FOR EVALUATIO  COUNT  PRCNT   CUM.
10A     0         10         20        PLTED   PRCNT
        +.........+.........+
     1 2S**                 .      2    8.0     8.0
     2 1S***                .      3   12.0    20.0
     3  M*********          .      9   36.0    56.0
     4 1S**********         .     11   44.0   100.0
        +.........+.........+
```

```
   HISTOGRAMS  FOR EVALUATIO  COUNT  PRCNT   CUM.
10B     0         10         20        PLTED   PRCNT
        +.........+.........+
     0 2S*                  .      1    4.0     4.0
     1  .*                  .      1    4.0     8.0
     2 1S****               .      4   16.0    24.0
     3  M******             .      6   24.0    48.0
     4 1S************       .     13   52.0   100.0
        +.........+.........+
```

```
   HISTOGRAMS  FOR EVALUATIO  COUNT  PRCNT   CUM.
100      0         10         20        PLTED  PRCNT
         +.........+.........+
      0 2S**                 .      2   8.0    8.0
      1 1S                   .      0   0.     8.0
      2  M*****              .      5  20.0   28.0
      3  .********           .      8  32.0   60.0
      4 1S**********         .     10  40.0  100.0
         +.........+.........+
```

```
   HISTOGRAMS  FOR EVALUATIC  COUNT  PRCNT   CUM.
100      0         10         20        PLTED  PRCNT
         +.........+.........+
      0 1S*****              .      5  20.0   20.0
      1  .*                  .      1   4.0   24.0
      2  M****               .      4  16.0   40.0
      3 1S*********          .      9  36.0   76.0
      4  .******             .      6  24.0  100.0
         +.........+.........+
```

```
   HISTOGRAMS  FOR EVALUATIO  COUNT  PRCNT   CUM.
11       0         10         20        PLTED  PRCNT
         +.........+.........+
      0 1S******             .      6  24.0   24.0
      1  .***                .      3  12.0   36.0
      2  M****               .      4  16.0   52.0
      3 1S*******            .      7  28.0   80.0
      4  .*****              .      5  20.0  100.0
         +.........+.........+
```

```
   HISTOGRAMS  FOR EVALUATIO  COUNT  PRCNT   CUM.
118      0         10         20        PLTED  PRCNT
         +.........+.........+
      0 1S********           .      8  32.0   32.0
      1  .*                  .      1   4.0   36.0
      2  M*****              .      5  20.0   56.0
      3 1S****               .      4  16.0   72.0
      4  .*******            .      7  28.0  100.0
         +.........+.........+
```

```
   HISTOGRAMS  FOR EVALUATIC  COUNT  PRCNT   CUM.
11C      0         10         20        PLTED  PRCNT
         +.........+.........+
      0 1S********           .      8  32.0   32.0
      1  M                   .      0   0.    32.0
      2  .**********         .     10  40.0   72.0
      3 1S***                .      3  12.0   84.0
      4 2S****               .      4  16.0  100.0
         +.........+.........+
```

```
   HISTOGRAMS  FOR EVALUATIO  COUNT  PRCNT   CUM.
15      0         10         20          PLTED  PRCNT
        +.........+.........+
     0  .****                .      4   16.0   16.0
     1  1S                   .      0    0.    16.0
     2   M*****              .      5   20.0   36.0
     3  .*******             .      7   28.0   64.0
     4  1S*********          .      9   36.0  100.0
        +.........+.........+
```

```
   HISTOGRAMS  FOR EVALUATIO  COUNT  PRCNT   CUM.
15      0         10         20          PLTED  PRCNT
        +.........+.........+
     0  2S**                 .      2    8.0    8.0
     1  1S**                 .      2    8.0   16.0
     2   M****               .      4   16.0   32.0
     3  .********            .      8   32.0   64.0
     4  1S*********          .      9   36.0  100.0
        +.........+.........+
     1
```

```
   HISTOGRAMS  FOR EVALUATIO  COUNT  PRCNT   CUM.
17      0         10         20          PLTED  PRCNT
        +.........+.........+
     0  2S**                 .      2    8.0    8.0
     1  1S                   .      0    0.     8.0
     2   M******             .      6   24.0   32.0
     3  .******              .      6   24.0   56.0
     4  1S**********         .     11   44.0  100.0
        +.........+.........+
```

```
   HISTOGRAMS  FOR EVALUATIO  COUNT  PRCNT   CUM.
18      0         10         20          PLTED  PRCNT
        +.........+.........+
     0  1S********           .      8   32.0   32.0
     1   M*                  .      1    4.0   36.0
     2  .******              .      6   24.0   60.0
     3  1S******             .      6   24.0   84.0
     4  2S****               .      4   16.0  100.0
        +.........+.........+
```

```
   HISTOGRAMS  FOR EVALUATIO  COUNT  PRCNT   CUM.
19      0         10         20          PLTED  PRCNT
        +.........+.........+
     0  .****                .      4   16.0   16.0
     1  1S                   .      0    0.    16.0
     2   M****               .      4   16.0   32.0
     3  .*********           .      9   36.0   68.0
     4  1S********           .      8   32.0  100.0
        +.........+.........+
```

```
   HISTOGRAMS  FOR EVALUATIO   COUNT  PRCNT   CUM.
20       0         10         20          PLTED  PRCNT
         +.........+.........+
      0  .****                .      4   16.0   16.0
      1  1S*                  .      1    4.0   20.0
      2  M******              .      6   24.0   44.0
      3  1S**********         .     11   44.0   88.0
      4  2S***                .      3   12.0  100.0
         +.........+.........+
```

```
   HISTOGRAMS  FOR EVALUATIO   COUNT  PRCNT   CUM.
21       0         10         20          PLTED  PRCNT
         +.........+.........+
      0  1S**********         .     11   44.0   44.0
      1  .                    .      0    0.    44.0
      2  M                    .      0    0.    44.0
      3  1S*****              .      5   20.0   64.0
      4  .*********           .      9   36.0  100.0
         +.........+.........+
```

```
   HISTOGRAMS  FOR EVALUATIO   COUNT  PRCNT   CUM.
22       0         10         20          PLTED  PRCNT
         +.........+.........+
      0  2S**                 .      2    8.0    8.0
      1  1S*                  .      1    4.0   12.0
      2  .                    .      0    0.    12.0
      3  M**********          .     11   44.0   56.0
      4  1S**********         .     11   44.0  100.0
         +.........+.........+
```

Non-Missing-Data Correlation Matrix

The list below gives the correspondence between the computer printout variable numbers and the questionnaire variable numbers.

Printout Number	Questionnaire Number	Printout Number	Questionnaire Number
1	1	22	9b
2	2	23	9c
3	3	24	10a
4	4a	25	10b
5	4b	26	10c
6	4c	27	10d
7	4d	28	11a
8	4e	29	11b
9	5	30	11e
10	6	31	11d
11	7	32	11c
12	8a	33	12
13	8b	34	13
14	8c	35	14
15	8d	36	15
16	8e	37	16
17	8f	38	17
18	8g	39	18
19	8h	40	19
20	8i	41	20
21	9a	42	21
		43	22

EVALUATION OF FIELD INSTRUCTORS MISSING DATA CORRELATIONS

	1	2	3	4	5	6
1	1.000					
2	0.365	1.000				
3	0.293	0.552	1.000			
4	0.793	0.635	0.306	1.000		
5	0.547	0.334	0.304	0.656	1.000	
6	0.715	0.214	0.377	0.693	0.813	1.000
7	0.784	0.390	0.211	0.735	0.632	0.589
8	0.505	0.577	0.482	0.670	0.462	0.534
9	0.503	0.677	0.316	0.702	0.323	0.306
10	0.503	0.636	0.556	0.725	0.665	0.564
11	0.446	0.592	0.458	0.653	0.301	0.379
12	0.391	0.428	0.576	0.529	0.475	0.436
13	0.472	0.535	0.404	0.445	0.217	0.234
14	0.733	0.324	0.319	0.753	0.743	0.743
15	0.607	0.549	0.407	0.693	0.607	0.576
16	0.464	0.263	0.514	0.390	0.459	0.596
17	0.223	0.228	0.293	0.108	0.039	0.207
18	0.159	0.091	-0.047	0.194	0.394	0.119
19	0.769	0.069	0.077	0.404	0.441	0.511
20	0.578	0.489	0.225	0.613	0.301	0.355
21	0.537	0.305	0.558	0.559	0.694	0.777
22	0.625	0.459	0.466	0.598	0.625	0.715
23	0.552	0.547	0.482	0.599	0.646	0.590
24	0.560	0.417	0.482	0.554	0.713	0.708
25	0.704	0.389	0.572	0.588	0.479	0.623
26	0.401	0.264	0.123	0.353	0.482	0.267
27	0.515	0.701	0.404	0.401	0.543	0.453
28	0.468	0.172	0.465	0.314	0.298	0.423
29	0.701	0.718	0.733	0.535	0.436	0.677
30	0.055	-0.011	0.373	0.101	0.252	0.313
31	0.572	0.610	0.819	0.628	0.603	0.641
32	0.431	0.289	0.512	0.409	0.431	0.579
33	0.660	0.477	0.344	0.524	0.275	0.433
34	0.746	0.294	0.307	0.502	0.407	0.561
35	0.489	0.471	0.131	0.527	0.212	0.296
36	0.319	0.575	0.318	0.394	0.411	0.215
37	0.673	0.622	0.412	0.670	0.398	0.465
38	0.631	0.258	0.350	0.614	0.492	0.645
39	0.238	0.484	0.484	0.497	0.139	0.175
40	-0.451	-0.030	0.249	-0.310	-0.152	-0.099
41	0.474	0.596	0.378	0.509	0.283	0.210
42	0.034	0.337	0.344	0.040	0.192	0.
43	0.867	0.579	0.453	0.734	0.525	0.652

EVALUATION OF FIELD INSTRUCTORS MISSING DATA CORRELATIONS

	7	8	9	10	11
1					
2					
3					
4					
5					
6					
7	1.000				
8	0.663	1.000			
9	0.472	0.577	1.000		
10	0.553	0.620	0.668	1.000	
11	0.420	0.568	0.715	0.744	1.000
12	0.372	0.513	0.529	0.759	0.600
13	0.556	0.399	0.599	0.408	0.383
14	0.653	0.558	0.541	0.543	0.322
15	0.485	0.395	0.361	0.507	0.554
16	0.456	0.548	0.243	0.501	0.343
17	0.057	0.109	0.294	0.291	0.399
18	0.320	0.134	0.387	0.512	0.115
19	0.328	0.375	0.108	0.465	0.279
20	0.438	0.448	0.428	0.405	0.482
21	0.633	0.710	0.295	0.488	0.328
22	0.635	0.641	0.422	0.543	0.446
23	0.610	0.616	0.348	0.506	0.252
24	0.622	0.589	0.298	0.727	0.612
25	0.689	0.574	0.219	0.544	0.486
26	0.414	0.183	0.265	0.375	0.257
27	0.460	0.309	0.373	0.453	0.075
28	0.168	0.086	0.465	0.427	0.233
29	0.445	0.404	0.534	0.553	0.425
30	-0.236	0.021	0.081	0.169	0.169
31	0.458	0.495	0.690	0.839	0.641
32	0.593	0.612	0.349	0.458	0.041
33	0.653	0.631	0.421	0.403	0.407
34	0.639	0.233	0.471	0.271	0.088
35	0.728	0.584	0.338	0.267	0.251
36	0.502	0.552	0.295	0.626	0.388
37	0.642	0.625	0.625	0.528	0.566
38	0.569	0.531	0.393	0.535	0.355
39	0.362	0.666	0.545	0.443	0.525
40	-0.478	0.024	-0.383	-0.092	-0.014
41	0.264	0.175	0.574	0.469	0.585
42	-0.122	-0.179	0.337	0.277	0.093
43	0.740	0.646	0.489	0.545	0.537

	12	13	14	15	16	17	18	19	20	21	22
12	1.000										
13	0.294	1.000									
14	0.516	0.503	1.000								
15	0.367	0.234	0.541	1.000							
16	0.649	-0.100	0.375	0.288	1.000						
17	0.052	-0.043	-0.082	0.132	0.507	1.000					
18	0.397	0.445	0.436	0.	0.055	-0.057	1.000				
19	0.175	-0.081	0.287	0.167	0.409	0.262	0.225	1.000			
20	0.244	0.286	0.526	0.331	0.370	0.188	0.124	0.287	1.000		
21	0.484	0.342	0.696	0.587	0.715	-0.032	0.036	0.276	0.272	1.000	
22	0.444	0.266	0.637	0.601	0.722	0.099	0.046	0.158	0.708	0.727	1.000
23	0.627	0.109	0.632	0.650	0.789	-0.055	0.048	0.100	0.286	0.649	0.652
24	0.485	0.249	0.509	0.654	0.530	0.317	0.218	0.273	0.361	0.610	0.740
25	0.654	0.360	0.528	0.600	0.475	-0.145	0.049	0.195	0.263	0.628	0.619
26	0.581	0.069	0.348	0.233	0.597	0.115	0.273	0.029	0.423	0.170	0.453
27	0.377	0.332	0.657	0.330	0.283	0.	0.328	-0.143	0.319	0.428	0.586
28	0.490	0.137	0.349	0.054	0.578	0.417	-0.012	0.195	0.340	0.085	0.254
29	0.605	0.398	0.630	0.333	0.690	0.301	0.205	0.160	0.580	0.436	0.593
30	0.232	-0.235	0.102	0.036	0.414	0.266	-0.483	0.133	-0.047	0.155	-0.004
31	0.688	0.492	0.680	0.433	0.454	0.119	0.120	0.272	0.368	0.448	0.485
32	0.440	0.326	0.479	0.027	0.684	0.096	0.204	0.214	0.337	0.742	0.756
33	0.226	0.444	0.450	0.396	0.375	0.154	-0.017	0.035	0.372	0.535	0.576
34	0.217	0.691	0.649	0.338	0.074	-0.093	0.321	0.111	0.358	0.473	0.570
35	0.030	0.491	0.303	0.305	0.167	-0.228	0.	0.273	0.355	0.461	0.429
36	0.482	0.335	0.301	0.292	0.473	0.022	0.582	0.406	0.328	0.385	0.393
37	0.572	0.568	0.702	0.471	0.469	0.136	0.407	0.329	0.800	0.494	0.614
38	0.380	0.248	0.543	0.448	0.544	0.095	0.178	0.532	0.346	0.613	0.526
39	0.225	0.288	0.126	0.133	0.355	0.263	-0.244	0.152	0.248	0.384	0.349
40	-0.099	-0.324	-0.380	-0.146	0.137	0.163	-0.261	-0.018	-0.199	0.040	-0.045
41	0.455	0.479	0.408	0.280	0.233	0.349	0.402	0.174	0.785	0.084	0.331
42	0.329	0.194	0.197	-0.058	0.192	0.359	0.160	-0.400	0.354	-0.086	0.284
43	0.515	0.344	0.604	0.695	0.590	0.340	0.050	0.447	0.620	0.635	0.701

CORRELATIONS COL. = VARIABLE ROW = VARIABLE

	23	24	25	26	27	28	29	30	31	32	33
23	1.000										
24	0.600	1.000									
25	0.736	0.696	1.000								
26	0.392	0.405	0.438	1.000							
27	0.621	0.604	0.485	0.420	1.000						
28	0.325	0.376	0.324	0.476	0.654	1.000					
29	0.523	0.653	0.629	0.415	0.745	0.860	1.000				
30	0.157	0.262	0.165	0.232	0.213	0.775	0.512	1.000			
31	0.499	0.738	0.621	0.272	0.687	0.744	0.803	0.505	1.000		
32	0.575	0.386	0.370	0.179	0.518	0.388	0.541	-0.092	0.536	1.000	
33	0.637	0.538	0.594	0.256	0.564	0.333	0.638	0.182	0.542	0.681	1.000
34	0.469	0.271	0.573	0.161	0.577	0.375	0.674	0.019	0.504	0.549	0.734
35	0.386	0.192	0.423	-0.019	0.067	-0.222	-0.069	-0.552	0.179	0.539	0.470
36	0.503	0.410	0.376	0.432	0.279	-0.018	0.128	-0.298	0.305	0.477	0.436
37	0.578	0.379	0.445	0.475	0.360	0.224	0.539	-0.213	0.495	0.435	0.521
38	0.619	0.516	0.623	0.211	-0.471	0.560	0.795	0.385	0.607	0.334	0.506
39	0.331	0.413	0.420	0.228	0.260	0.217	0.228	0.478	0.353	0.218	0.579
40	-0.210	0.030	-0.149	-0.219	-0.321	-0.125	-0.058	0.448	-0.224	-0.186	-0.071
41	0.153	0.220	0.163	0.469	0.321	0.552	0.563	0.210	0.537	0.079	0.305
42	0.027	0.149	-0.184	0.556	0.793	0.856	0.822	0.393	0.731	0.490	0.141
43	0.718	0.639	0.688	0.585	0.504	0.284	0.607	-0.025	0.581	0.588	0.712

CORRELATIONS COL. = VARIABLE ROW = VARIABLE

	34	35	36	37	38	39	40	41	42	43
34	1.000									
35	0.329	1.000								
36	0.113	0.492	1.000							
37	0.527	0.477	0.553	1.000						
38	0.486	0.327	0.369	0.371	1.000					
39	0.192	0.326	0.322	0.156	0.488	1.000				
40	-0.325	-0.509	-0.062	-0.334	-0.058	0.185	1.000			
41	0.444	-0.036	0.362	0.767	0.172	0.143	-0.087	1.000		
42	0.124	-0.241	0.300	0.194	-0.179	0.042	-0.047	0.664	1.000	
43	0.571	0.576	0.561	0.748	0.521	0.374	-0.304	0.557	0.080	1.000